



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 141274

TO: Sarvamangala Devi
Location: REM-3C18
Art Unit: 1645
Monday, January 03, 2005

Case Serial Number: 10/031289

From: Alex Waclawiw
Location: Biotech-Chem Library
Rem 1A71
Phone: 272-2534

Alexandra.waclawiw@uspto.gov

Search Notes

141274

STIC-Biotech/ChemLib

From: Devi, Sarvamangala
Sent: Monday, December 27, 2004 4:36 PM
To: STIC-Biotech/ChemLib
Subject: 10/031,289

In application 10/031,289, please perform a sequence search for SEQ ID NO: 1331 both in commercial and pending databases. Please provide a paper copy of the first 30 hits. Please include an inventors' name search for: Vega Massignani; Vincenzo Scarlato; Maria Scarselli; Cesora L. Galeotti; and Marirosa Mora.

Thanx.

S. DEVI, Ph.D.
AU 1645
Rems - 3C18

CRFE

STAFF USE ONLY

Point of Contact:
Searcher: Alexandra Waclawiw
Searcher Phone: 2- Technical Info. Specialist
Date Searcher Picked up: CM1 6A02.Tel: 308-4491
Date Completed: 12-30-04
Searcher Prep/Rev. Time: 1-3-05
Online Time:

Type of Search

NA Sequence: #
AA Sequence: # 1
Structure: #
Bibliographic:
Litigation:
Patent Family:
Other:

Vendors and cost where applicable

STN:
DIALOG:
QUESTEL/ORBIT:
LEXIS/NEXIS:
SEQUENCE SYSTEM:
WWW/Internet:
Other(Specify): CompuLink

Inventor Search

Devi 10/031,289

=> d que l14

L1 145 SEA ("SCARSELLI M"/AU OR "SCARSELLI M A"/AU) OR "SCARSELLI MARIA"/AU
 L2 110 SEA ("MASIGNANI V"/AU OR "MASIGNANI VEGA"/AU)
 L3 207 SEA ("SCARLATO V"/AU OR "SCARLATO VINCENZO"/AU)
 L4 62 SEA ("GALEOTTI C"/AU OR "GALEOTTI C L"/AU)
 L5 628 SEA "MORA MARIAROSA"/AU OR ("MORA M"/AU OR "MORA M A"/AU OR "MORA M C"/AU OR "MORA M D"/AU OR "MORA M DE LA L"/AU OR "MORA M DE LA LUZ"/AU OR "MORA M E"/AU OR "MORA M E M"/AU OR "MORA M ELENA VALERA"/AU OR "MORA M F"/AU OR "MORA M FERNANDA"/AU OR "MORA M G"/AU OR "MORA M GANTES"/AU OR "MORA M H"/AU OR "MORA M I"/AU OR "MORA M J"/AU OR "MORA M JOSE G"/AU OR "MORA M L"/AU OR "MORA M L G"/AU OR "MORA M N"/AU OR "MORA M O"/AU OR "MORA M P"/AU OR "MORA M R"/AU OR "MORA M ROSARIO GARCIA"/AU OR "MORA M S"/AU OR "MORA M T"/AU OR "MORA M T CLAVAGUERA"/AU OR "MORA M V"/AU OR "MORA M W"/AU OR "MORA M Y"/AU)
 L6 1056 SEA (L1 OR L2 OR L3 OR L4 OR L5)
 L9 85 SEA L6 AND MENING?
 L11 70 SEA L9 AND SEQUENCE?
 L13 58 SEA L11 AND ((PROTEIN OR PEPTIDE#) (L) SEQUENCE)
 L14 27 DUP REM L13 (31 DUPLICATES REMOVED)

=> d bib ab hitind l14.1-27

L14 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
 AN 2004:203978 HCAPLUS
 DN 140:252307
 TI Mutant forms of Neisseria meningitidis ADP-ribosylating toxin and use for vaccination
 IN Pizza, Mariagrazia; Masignani, Vega
 PA Chiron S.r.l., Italy
 SO PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004020634	A1	20040311	WO 2003-IB4295	20030901
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI GB 2002-20205 A 20020830

AB NMB1343 is an ADP-ribosylating toxin from Neisseria meningitidis. The invention provides a mutant toxin having a substitution at one or more of amino Glu-109, Glu-111 or Glu-120. The mutations(s) is/are preferably Glu to Asp. The protein of the invention preferably has reduced or eliminated ADP-ribosyltransferase and/or NAD-glycohydrolase activity relative to the wild-type protein. The ADP-ribosylating toxin mutants are used as immunogen or as parenteral or mucosal vaccine adjuvant.

IC ICM C12N015-31
 ICS C07K014-22; C07K016-12; A61K039-095; A61K039-395

CC 15-2 (Immunochemistry)
 Section cross-reference(s): 3, 7, 10

ST **Neisseria ADP ribosylating toxin vaccine; ADP ribosyltransferase mutant sequence**

IT Immunostimulants
 (adjuvants, parenteral or mucosal; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT Antibodies and Immunoglobulins
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (for ADP-ribosylating toxin; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT **Protein sequences**
 (for ADP-ribosyltransferase; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and uses for vaccination)

IT **Neisseria meningitidis**
 (group A; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT **Neisseria meningitidis**
 (group B; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT Antigens
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT Toxins
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and uses for vaccination)

IT Gene, microbial
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nm-adprt, for ADP-ribosylating toxin; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT Vaccines
 (parenteral or mucosal; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT Mutagenesis
 (site-directed, substitution; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and uses for vaccination)

IT 669364-46-9 669364-47-0 669364-48-1 669364-49-2
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid **sequence**; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and uses for vaccination)

IT 9032-65-9, NAD-glycohydrolase 58319-92-9, ADP-ribosyltransferase
 RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and uses for vaccination)

IT 669084-75-7 669366-48-7 669366-49-8 669366-50-1
 RL: PRP (Properties)
 (unclaimed nucleotide **sequence**; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for vaccination)

IT 669366-51-2
 RL: PRP (Properties)
 (unclaimed **protein sequence**; mutant forms of *Neisseria meningitidis* ADP-ribosylating toxin and use for

vaccination)
 IT 669084-71-3 669084-73-5 669084-78-0
 RL: PRP (Properties)
 (unclaimed sequence; mutant forms of Neisseria
 meningitidis ADP-ribosylating toxin and use for vaccination)
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
 AN 2004:240371 HCAPLUS
 DN 140:269524
 TI Meningococcal antigens
 IN Scarlato, Vincenzo; Maignani, Vega; Rappuoli, Rino;
 Pizza, Mariagrazia; Grandi, Guido
 PA Chrion S.R.L., Italy
 SO U.S., 283 pp., Cont.-in-part of WO 99 36,544.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6709660	B1	20040323	US 1999-302626	19990430
	WO 9936544	A2	19990722	WO 1999-IB103	19990114
	WO 9936544	A3	19991014		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 2004126391	A1	20040701	US 2003-695499	20031028
PRAI	GB 1998-760	A	19980114		
	GB 1998-19015	A	19980901		
	GB 1998-22143	A	19981009		
	WO 1999-IB103	A2	19990114		
	US 1999-302626	A1	19990430		
AB	The invention provides proteins from Neisseria meningitidis (groups A & B), including amino acid sequences, the corresponding nucleotide sequences, expression data, and serol. data. The proteins are useful antigens for vaccines, immunogenic compns., and/or diagnostics.				
IC	ICM...A61K039-095...				
NCL	424250100; 424185100; 424190100; 424234100; 424249100; 530300000; 530350000				
CC	15-2 (Immunochemistry) Section cross-reference(s): 3, 9, 10, 14				
IT	Diagnosis (ORF40 proteins for meningococcal diagnosis)				
IT	Proteins RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ORF40; of group A and B Neisseria meningitidis)				
IT	DNA sequences Protein sequences (for proteins of group A and B Neisseria meningitidis)				
IT	Neisseria meningitidis				

(group A; ORF40 proteins for diagnosis and vaccination)

IT **Neisseria meningitidis**

(group B; ORF40 proteins for diagnosis and vaccination)

IT Vaccines

(meningococcal; ORF40 proteins for)

IT Antigens

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (of group A and B **Neisseria meningitidis**)

IT 671823-51-1 671823-52-2 671823-53-3 671823-54-4 671823-55-5, Protein ORF40 (**Neisseria meningitidis**) 671823-56-6

671823-57-7 671823-58-8 671823-59-9 671823-60-2 671823-61-3

671823-62-4 671823-63-5 671823-64-6 671823-65-7

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (amino acid sequence; ORF40 proteins for diagnosis and vaccination)

IT 671823-66-8, 1: PN: US6709660 SEQID: 1 unclaimed DNA 671823-67-9, 4: PN: US6709660 SEQID: 3 unclaimed DNA 671823-68-0, 6: PN: US6709660 SEQID: 5 unclaimed DNA 671823-69-1, 8: PN: US6709660 SEQID: 7 unclaimed DNA

671823-71-5, 11: PN: US6709660 SEQID: 9 unclaimed DNA 671823-73-7

671823-75-9 671823-77-1 671823-79-3 671823-81-7 671823-83-9

671823-85-1 671823-87-3 671823-89-5 671823-91-9 671823-93-1

671823-95-3 671823-97-5 671823-99-7 671824-01-4 671824-03-6

671824-05-8 671824-07-0 671824-09-2 671824-11-6 671824-13-8

671824-15-0 671824-17-2 671824-19-4 671824-21-8 671824-23-0

671824-25-2 671824-27-4 671824-29-6 671824-31-0 671824-33-2

671824-35-4 671824-37-6 671824-39-8 671824-41-2 671824-43-4

671824-45-6 671824-47-8 671824-49-0 671824-51-4 671824-53-6

671824-54-7 671824-55-8 671824-56-9 671824-57-0 671824-58-1

671824-59-2 671824-60-5 671824-61-6 671824-62-7 671824-63-8

671824-64-9 671824-65-0 671824-66-1 671824-67-2 671824-68-3

671824-69-4 671824-70-7 671824-71-8 671824-72-9 671824-73-0

671824-74-1 671824-75-2 671824-76-3 671824-77-4 671824-78-5

RL: PRP (Properties)

(unclaimed nucleotide sequence; meningococcal antigens)

IT 671823-70-4 671823-72-6 671823-74-8 671823-76-0 671823-78-2

671823-80-6 671823-82-8 671823-84-0 671823-86-2 671823-88-4

671823-90-8 671823-92-0 671823-94-2 671823-96-4 671823-98-6

671824-00-3 671824-02-5 671824-04-7 671824-06-9 671824-08-1

671824-10-5 671824-12-7 671824-14-9 671824-16-1 671824-18-3

671824-20-7 671824-22-9 671824-24-1 671824-26-3 671824-28-5

671824-30-9 671824-32-1 671824-34-3 671824-36-5 671824-38-7

671824-40-1 671824-42-3 671824-44-5 671824-46-7 671824-48-9

671824-50-3 671824-52-5 671824-79-6 671824-80-9 671824-81-0

671824-82-1 671824-83-2 671824-84-3 671824-85-4 671824-86-5

671824-87-6 671824-88-7 671824-89-8 671824-90-1 671824-91-2

671824-92-3 671824-93-4 671824-94-5 671824-95-6 671824-96-7

671824-97-8 671824-98-9 671824-99-0 671825-00-6 671825-01-7

671825-02-8 671825-03-9 671825-04-0 671825-05-1 671825-06-2

671825-07-3 671825-08-4 671825-09-5 671825-10-8 671825-11-9

671825-12-0 671825-13-1 671825-14-2 671825-15-3 671825-16-4

671825-17-5 671825-18-6 671825-19-7 671825-20-0 671825-21-1

671825-22-2 671825-23-3 671825-24-4 671825-25-5 671825-26-6

671825-27-7 671825-28-8

RL: PRP (Properties)

(unclaimed protein sequence; meningococcal antigens)

IT 671774-60-0 671774-61-1 671774-62-2 671774-63-3 671774-64-4

671774-65-5 671774-66-6 671774-67-7

RL: PRP (Properties)

(unclaimed **sequence**; **meningococcal** antigens)

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 27 MEDLINE on STN DUPLICATE 3
AN 2004250468 MEDLINE
DN PubMed ID: 15149020
TI In silico identification of novel bacterial ADP-ribosyltransferases.
AU Masignani Vega; Balducci Enrico; Serruto Davide; Veggi Daniele;
Arico Beatrice; Comanducci Maurizio; Pizza Mariagrazia; Rappuoli Rino
CS IRIS Chiron Vaccines Siena, Italy.
SO International journal of medical microbiology : IJMM, (2004 Apr) 293 (7-8)
471-8. Ref: 28
Journal code: 100898849. ISSN: 1438-4221.
CY Germany: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 200407
ED Entered STN: 20040520
Last Updated on STN: 20040801
Entered Medline: 20040730
AB With the advent of the genomic era, identification of bacterial factors involved in virulence is a different challenge. Given the vast amount of information available on toxins, in terms of **sequence** and 3D structure, and thanks to the growing number of **sequenced** bacterial genomes, it is possible to proceed by homology criteria to predict novel toxins in different microorganisms. ADP-ribosyltransferases constitute a class of functionally conserved enzymes, which display toxic activity in a variety of bacterial pathogens. Since these **proteins** play a key role in pathogenesis, they have been extensively characterized and successfully used as vaccine components and mucosal adjuvants. Therefore, the application of in silico analyses to identify novel members of this class of enzymes represents an important challenge in the genomic era. To address this subject, different groups have recently pursued homology-based procedures to screen bacterial genomes for novel, yet undiscovered ADP-ribosyltransferases (ADPRTs) and have identified more than twenty novel ADPRTs in Gram-positive and Gram-negative bacteria. We have developed a novel pattern-based computational approach, which, flanked by secondary structure prediction tools, has allowed the identification of previously unrecognised putative ADPRTs. One of them, identified in *Neisseria meningitidis* has been extensively characterized and shown to possess the predicted enzymatic activity, suggesting a possible role of this **protein** in the virulence of **Meningococcus**.
CT *ADP Ribose Transferases: GE, genetics
ADP Ribose Transferases: ME, metabolism
Amino Acid Motifs
Amino Acid Sequence
Bacterial Toxins: CH, chemistry
Bacterial Toxins: GE, genetics
Bacterial Toxins: ME, metabolism
*Catalytic Domain: GE, genetics
Genome, Bacterial
Models, Molecular
Molecular Sequence Data

***Neisseria meningitidis: EN, enzymology**

Neisseria meningitidis: GE, genetics

Protein Conformation

CN 0 (Bacterial Toxins); EC 2.4.2.- (ADP Ribose Transferases); EC 2.4.2.- (NarE protein, **Neisseria meningitidis**)

L14 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4

AN 2003:892807 HCAPLUS

DN 139:359960

TI Nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics

IN Telford, John; Massignani, Vega; Margarit y Ros, Immaculada; Grandi, Guido; Fraser, Claire; Tettelin, Herve

PA Chiron S.r.l., Italy; The Institute for Genomic Research

SO PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003093306	A2	20031113	WO 2003-GB1882	20030502
	WO 2003093306	A3	20040212		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	GB 2002-10128	A	20020502		

AB The invention provides proteins from group B streptococcus (*Streptococcus agalactiae* serotype V, strain 2603 V/R) and group A streptococcus (*Streptococcus pyogenes* strain SF370/ATCC 700294), including amino acid sequences and the corresponding nucleotide sequences. The sequences are useful for preparation of vaccines, diagnostics, and therapeutics for streptococcal infections.

IC ICM C07K014-315

ICS C07K016-12; C12N015-62; C12Q001-68; A61K038-17

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 6, 10

ST Streptococcus gene **protein sequence**; vaccine

Streptococcus infection gene **protein sequence**;

diagnosis Streptococcus infection gene **protein sequence**

; antibiotic Streptococcus infection gene **protein sequence**

IT **Neisseria meningitidis**

(group A, therapeutic composition containing saccharide antigen from; nucleic

acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT **Neisseria meningitidis**

(group B, therapeutic composition containing protein antigen from; nucleic acids

and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT **Neisseria meningitidis**

(group C, therapeutic composition containing saccharide antigen from;
nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT *Neisseria meningitidis*
(group W-135, therapeutic composition containing saccharide antigen from;
nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics).

IT *Neisseria meningitidis*
(group Y, therapeutic composition containing saccharide antigen from;
nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT Antibacterial agents
DNA sequences
Drug screening
Molecular cloning
Protein sequences
Streptococcus agalactiae
Streptococcus group A
Streptococcus group B
Streptococcus pyogenes
Vaccines
(nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT 457091-54-2 457091-55-3 622373-15-3 622432-89-7 622432-91-1
622432-93-3 622432-95-5 622432-97-7 622432-99-9 622433-01-6
622433-03-8 622433-05-0 622433-07-2 622433-09-4 622433-11-8
622433-13-0 622433-15-2 622433-17-4 622433-19-6 622433-21-0
622433-23-2 622433-25-4 622433-27-6 622433-29-8 622433-31-2
622433-33-4 622433-35-6 622433-37-8 622433-39-0 622433-41-4
622433-43-6 622433-45-8 622433-47-0 622433-49-2 622433-51-6
622433-53-8 622433-55-0 622433-57-2 622433-59-4 622433-61-8
622433-63-0 622433-65-2 622433-67-4 622433-69-6 622433-71-0
622433-73-2 622433-75-4 622433-77-6 622433-79-8 622433-81-2
622433-83-4 622433-85-6 622433-87-8 622433-89-0 622433-91-4
622433-93-6 622433-95-8 622433-97-0 622433-99-2 622434-01-9
622434-03-1 622434-05-3 622434-07-5 622434-09-7 622434-11-1
622434-13-3 622434-15-5 622434-17-7 622434-19-9 622434-21-3
622434-23-5 622434-25-7 622434-27-9 622434-29-1 622434-31-5
622434-33-7 622434-35-9 622434-37-1 622434-39-3 622434-41-7
622434-43-9 622434-45-1 622434-47-3 622434-49-5 622434-51-9
622434-53-1 622434-55-3 622434-57-5 622434-59-7 622434-61-1
622434-63-3 622434-65-5 622434-67-7 622434-69-9 622434-71-3
622434-73-5 622434-75-7 622434-77-9 622434-79-1 622434-81-5
622434-83-7 622434-85-9 622434-87-1 622434-89-3 622434-91-7
622434-93-9 622434-95-1 622434-97-3 622434-99-5 622435-01-2
622435-03-4 622435-05-6 622435-08-9 622435-11-4 622435-13-6
622435-15-8 622435-17-0 622435-19-2 622435-21-6 622435-23-8
622435-25-0 622435-27-2 622435-29-4 622435-31-8 622435-33-0
622435-35-2 622435-37-4 622435-39-6 622435-41-0 622435-43-2
622435-45-4 622435-47-6 622435-49-8 622435-51-2 622435-53-4
622435-55-6 622435-57-8 622435-59-0 622435-61-4 622435-63-6
622435-65-8 622435-67-0 622435-69-2 622435-71-6 622435-73-8
622435-75-0 622435-77-2 622435-79-4 622435-81-8 622435-83-0
622435-85-2 622435-87-4 622435-89-6 622435-91-0 622435-93-2
622435-95-4 622435-97-6 622435-99-8 622436-01-5 622436-03-7
622436-05-9 622436-07-1 622436-09-3 622436-11-7 622436-13-9
622436-15-1 622436-17-3 622436-19-5 622436-21-9 622436-23-1

622436-25-3	622436-27-5	622436-29-7	622436-31-1	622436-33-3
622436-35-5	622436-37-7	622436-39-9	622436-41-3	622436-43-5
622436-45-7	622436-47-9	622436-49-1	622436-51-5	622436-53-7
622436-55-9	622436-57-1	622436-59-3	622436-61-7	622436-63-9
622436-65-1	622436-67-3	622436-69-5	622436-71-9	622436-73-1
622436-75-3	622436-77-5	622436-79-7	622436-81-1	622436-83-3
622436-85-5	622436-87-7	622436-89-9	622436-91-3	622436-93-5
622436-95-7	622436-97-9	622436-99-1	622437-01-8	622437-03-0
622437-05-2	622437-07-4	622437-09-6	622437-11-0	622437-13-2
622437-15-4	622437-17-6	622437-19-8	622437-21-2	622437-23-4
622437-25-6	622437-27-8	622437-29-0	622437-31-4	622437-33-6
622437-35-8	622437-37-0	622437-39-2	622437-41-6	622437-43-8
622437-45-0	622437-47-2	622437-49-4	622437-51-8	622437-53-0

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (amino acid **sequence**; nucleic acids and **proteins** from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT	622437-55-2	622437-57-4	622437-59-6	622437-61-0	622437-63-2
	622437-65-4	622437-67-6	622437-69-8	622437-71-2	622437-73-4
	622437-75-6	622437-77-8	622437-79-0	622437-81-4	622437-83-6
	622437-85-8	622437-87-0	622437-89-2	622437-91-6	622437-93-8
	622437-95-0	622437-97-2	622437-99-4	622438-01-1	622438-03-3
	622438-05-5	622438-07-7	622438-09-9	622438-11-3	622438-13-5
	622438-15-7	622438-17-9	622438-19-1	622438-21-5	622438-23-7
	622438-25-9	622438-27-1	622438-29-3	622438-31-7	622438-33-9
	622438-35-1	622438-37-3	622438-39-5	622438-41-9	622438-43-1
	622438-45-3	622438-47-5	622438-49-7	622438-51-1	622438-53-3
	622438-55-5	622438-57-7	622438-59-9	622438-61-3	622438-63-5
	622438-65-7	622438-67-9	622438-69-1	622438-71-5	622438-73-7
	622438-75-9	622438-77-1	622438-79-3	622438-81-7	622438-83-9
	622438-85-1	622438-87-3	622438-89-5	622438-91-9	622438-93-1
	622438-95-3	622438-97-5	622438-99-7	622439-01-4	622439-03-6
	622439-05-8	622439-07-0	622439-09-2	622439-11-6	622439-13-8
	622439-15-0	622439-17-2	622439-19-4	622439-21-8	622439-23-0
	622439-25-2	622439-27-4	622439-29-6	622439-31-0	622439-33-2
	622439-35-4	622439-37-6	622439-39-8	622439-41-2	622439-43-4
	622439-45-6	622439-47-8	622439-49-0	622439-51-4	622439-53-6
	622439-55-8	622439-57-0	622439-59-2	622439-61-6	622439-63-8
	622439-65-0	622439-67-2	622439-69-4	622439-71-8	622439-73-0
	622439-75-2	622439-77-4	622439-79-6	622439-81-0	622439-83-2
	622439-85-4	622439-87-6	622439-89-8	622439-91-2	622439-93-4
	622439-95-6	622439-97-8	622439-99-0	622440-01-1	622440-03-3
	622440-05-5	622440-07-7	622440-09-9	622440-11-3	622440-13-5
	622440-15-7	622440-17-9	622440-19-1	622440-21-5	622440-23-7
	622440-25-9	622440-27-1	622440-29-3	622440-31-7	622440-33-9
	622440-35-1	622440-37-3	622440-39-5	622440-41-9	622440-43-1
	622440-45-3	622440-47-5	622440-49-7	622440-51-1	622440-53-3
	622440-55-5	622440-57-7	622440-59-9	622440-61-3	622440-63-5
	622440-65-7	622440-67-9	622440-69-1	622440-71-5	622440-73-7
	622440-75-9	622440-77-1	622440-79-3	622440-81-7	622440-83-9
	622440-85-1	622440-87-3	622440-89-5	622440-91-9	622440-93-1
	622440-95-3	622440-97-5	622440-99-7	622441-01-4	622441-03-6
	622441-05-8	622441-07-0	622441-09-2	622441-11-6	622441-13-8
	622441-15-0	622441-17-2	622441-19-4	622441-21-8	622441-23-0
	622441-25-2	622441-27-4	622441-29-6	622441-31-0	622441-33-2
	622441-35-4	622441-37-6	622441-39-8	622441-41-2	622441-43-4
	622441-45-6	622441-47-8	622441-49-0	622441-51-4	622441-53-6
	622441-55-8	622441-57-0	622441-59-2	622441-61-6	622441-63-8
	622441-65-0	622441-67-2	622441-69-4	622441-71-8	622441-73-0

622441-75-2 622441-77-4 622441-79-6 622441-81-0 622441-83-2
 622441-85-4 622441-87-6 622441-89-8 622441-91-2 622441-93-4
 622441-95-6 622441-97-8 622441-99-0 622442-01-7 622442-03-9
 622442-05-1 622442-07-3 622442-09-5 622442-11-9 622442-13-1
 622442-15-3 622442-17-5 622442-19-7 622442-21-1 622442-23-3
 RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid **sequence**; nucleic acids and **proteins**
 from Streptococcus groups A & B and their uses as immunogens in
 vaccines, diagnostics, and therapeutics)

IT 622442-25-5 622442-27-7 622442-29-9 622442-31-3 622442-33-5
 622442-35-7 622442-37-9 622442-39-1 622442-41-5 622442-43-7
 622442-45-9 622442-47-1 622442-49-3 622442-51-7 622442-53-9
 622442-55-1 622442-57-3 622442-59-5 622442-61-9 622442-63-1
 622442-65-3 622442-67-5 622442-69-7 622442-71-1 622442-73-3
 622442-75-5 622442-77-7 622442-79-9 622442-81-3 622442-83-5
 622442-85-7 622442-87-9 622442-89-1 622442-91-5 622442-93-7
 622442-95-9 622442-97-1 622442-99-3 622443-01-0 622443-03-2
 622443-05-4 622443-07-6 622443-09-8 622443-11-2 622443-13-4
 622443-15-6 622443-17-8 622443-19-0 622443-21-4 622443-23-6
 622443-25-8 622443-27-0 622443-29-2 622443-31-6 622443-33-8
 622443-35-0 622443-37-2 622443-39-4 622443-41-8 622443-43-0
 622443-45-2 622443-47-4 622443-49-6 622443-51-0 622443-53-2
 622443-55-4 622443-57-6 622443-59-8 622443-61-2 622443-63-4
 622443-65-6 622443-67-8 622443-69-0 622443-71-4 622443-73-6
 622443-75-8 622443-77-0 622443-79-2 622443-81-6 622443-83-8
 622443-85-0 622443-87-2 622443-89-4 622443-91-8 622443-93-0
 622443-95-2 622443-97-4 622443-99-6 622444-01-3 622444-03-5
 622444-05-7 622444-07-9 622444-09-1 622444-11-5 622444-13-7
 622444-15-9 622444-17-1 622444-19-3 622444-21-7 622444-23-9
 622444-25-1 622444-27-3 622444-29-5 622444-31-9 622444-33-1
 622444-35-3 622444-37-5 622444-39-7 622444-41-1 622444-43-3
 622444-45-5 622444-47-7 622444-49-9 622444-51-3 622444-53-5
 622444-55-7 622444-57-9 622444-59-1 622444-61-5 622444-63-7
 622444-65-9 622444-67-1 622444-69-3 622444-71-7 622444-73-9
 622444-75-1 622444-77-3 622444-79-5 622444-81-9 622444-83-1
 622444-85-3 622444-87-5 622444-89-7 622444-91-1 622444-93-3
 622444-95-5 622444-97-7 622444-99-9 622445-01-6 622445-03-8
 622445-05-0 622445-07-2 622445-09-4 622445-11-8 622445-14-1
 622445-16-3 622445-18-5 622445-20-9 622445-22-1 622445-24-3
 622445-26-5 622445-28-7 622445-30-1 622445-32-3 622445-34-5
 622445-36-7 622445-38-9 622445-40-3 622445-42-5 622445-44-7
 622445-46-9 622445-48-1 622445-50-5 622445-52-7 622445-54-9
 622445-56-1 622445-58-3 622445-60-7 622445-62-9 622445-64-1
 622445-66-3 622445-68-5 622445-70-9 622445-72-1 622445-74-3
 622445-76-5 622445-78-7 622445-80-1 622445-82-3 622445-84-5
 622445-86-7 622445-88-9 622445-90-3 622445-92-5 622445-94-7
 622445-96-9 622445-98-1 622446-00-8 622446-02-0 622446-04-2
 622446-06-4 622446-08-6 622446-10-0 622446-12-2 622446-14-4
 622446-16-6 622446-18-8 622446-20-2 622446-22-4 622446-24-6
 622446-26-8 622446-28-0 622446-30-4 622446-32-6 622446-34-8
 622446-36-0 622446-38-2 622446-40-6 622446-42-8 622446-44-0
 622446-46-2 622446-48-4 622446-50-8

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid **sequence**; nucleic acids and **proteins**
 from Streptococcus groups A & B and their uses as immunogens in
 vaccines, diagnostics, and therapeutics)

IT 622432-88-6 622432-90-0 622432-92-2 622432-94-4 622432-96-6
 622432-98-8 622433-00-5 622433-02-7 622433-04-9 622433-06-1

622433-08-3	622433-10-7	622433-12-9	622433-14-1	622433-16-3
622433-18-5	622433-20-9	622433-22-1	622433-24-3	622433-26-5
622433-28-7	622433-30-1	622433-32-3	622433-34-5	622433-36-7
622433-38-9	622433-40-3	622433-42-5	622433-44-7	622433-46-9
622433-48-1	622433-50-5	622433-52-7	622433-54-9	622433-56-1
622433-58-3	622433-60-7	622433-62-9	622433-64-1	622433-66-3
622433-68-5	622433-70-9	622433-72-1	622433-74-3	622433-76-5
622433-78-7	622433-80-1	622433-82-3	622433-84-5	622433-86-7
622433-88-9	622433-90-3	622433-92-5	622433-94-7	622433-96-9
622433-98-1	622434-00-8	622434-02-0	622434-04-2	622434-06-4
622434-08-6	622434-10-0	622434-12-2	622434-14-4	622434-16-6
622434-18-8	622434-20-2	622434-22-4	622434-24-6	622434-26-8
622434-28-0	622434-30-4	622434-32-6	622434-34-8	622434-36-0
622434-38-2	622434-40-6	622434-42-8	622434-44-0	622434-46-2
622434-48-4	622434-50-8	622434-52-0	622434-54-2	622434-56-4
622434-58-6	622434-60-0	622434-62-2	622434-64-4	622434-66-6
622434-68-8	622434-70-2	622434-72-4	622434-74-6	622434-76-8
622434-78-0	622434-80-4	622434-82-6	622434-84-8	622434-86-0
622434-88-2	622434-90-6	622434-92-8	622434-94-0	622434-96-2
622434-98-4	622435-00-1	622435-02-3	622435-04-5	622435-06-7
622435-07-8	622435-09-0	622435-10-3	622435-12-5	622435-14-7
622435-16-9	622435-18-1	622435-20-5	622435-22-7	622435-24-9
622435-26-1	622435-28-3	622435-30-7	622435-32-9	622435-34-1
622435-36-3	622435-38-5	622435-40-9	622435-42-1	622435-44-3
622435-46-5	622435-48-7	622435-50-1	622435-52-3	622435-54-5
622435-56-7	622435-58-9	622435-60-3	622435-62-5	622435-64-7
622435-66-9	622435-68-1	622435-70-5	622435-72-7	622435-74-9
622435-76-1	622435-78-3	622435-80-7	622435-82-9	622435-84-1
622435-86-3	622435-88-5	622435-90-9	622435-92-1	622435-94-3
622435-96-5	622435-98-7	622436-00-4	622436-02-6	622436-04-8
622436-06-0	622436-08-2	622436-10-6	622436-12-8	622436-14-0
622436-16-2	622436-18-4	622436-20-8	622436-22-0	622436-24-2
622436-26-4	622436-28-6	622436-30-0	622436-32-2	622436-34-4
622436-36-6	622436-38-8	622436-40-2	622436-42-4	622436-44-6
622436-46-8	622436-48-0	622436-50-4	622436-52-6	622436-54-8
622436-56-0	622436-58-2	622436-60-6	622436-62-8	622436-64-0
622436-66-2	622436-68-4	622436-70-8	622436-72-0	622436-74-2
622436-76-4	622436-78-6	622436-80-0	622436-82-2	622436-84-4
622436-86-6	622436-88-8	622436-90-2	622436-92-4	622436-94-6
622436-96-8	622436-98-0	622437-00-7	622437-02-9	622437-04-1
622437-06-3	622437-08-5	622437-10-9	622437-12-1	622437-14-3
622437-16-5	622437-18-7	622437-20-1	622437-22-3	622437-24-5
622437-26-7	622437-28-9	622437-30-3	622437-32-5	622437-34-7
622437-36-9	622437-38-1	622437-40-5	622437-42-7	622437-44-9
622437-46-1	622437-48-3	622437-50-7	622437-52-9	622437-54-1

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide **sequence**; nucleic acids and **proteins** from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

IT 622437-56-3	622437-58-5	622437-60-9	622437-62-1	622437-64-3
622437-66-5	622437-68-7	622437-70-1	622437-72-3	622437-74-5
622437-76-7	622437-78-9	622437-80-3	622437-82-5	622437-84-7
622437-86-9	622437-88-1	622437-90-5	622437-92-7	622437-94-9
622437-96-1	622437-98-3	622438-00-0	622438-02-2	622438-04-4
622438-06-6	622438-08-8	622438-10-2	622438-12-4	622438-14-6
622438-16-8	622438-18-0	622438-20-4	622438-22-6	622438-24-8
622438-26-0	622438-28-2	622438-30-6	622438-32-8	622438-34-0
622438-36-2	622438-38-4	622438-40-8	622438-42-0	622438-44-2
622438-46-4	622438-48-6	622438-50-0	622438-52-2	622438-54-4

622438-56-6	622438-58-8	622438-60-2	622438-62-4	622438-64-6
622438-66-8	622438-68-0	622438-70-4	622438-72-6	622438-74-8
622438-76-0	622438-78-2	622438-80-6	622438-82-8	622438-84-0
622438-86-2	622438-88-4	622438-90-8	622438-92-0	622438-94-2
622438-96-4	622438-98-6	622439-00-3	622439-02-5	622439-04-7
622439-06-9	622439-08-1	622439-10-5	622439-12-7	622439-14-9
622439-16-1	622439-18-3	622439-20-7	622439-22-9	622439-24-1
622439-26-3	622439-28-5	622439-30-9	622439-32-1	622439-34-3
622439-36-5	622439-38-7	622439-40-1	622439-42-3	622439-44-5
622439-46-7	622439-48-9	622439-50-3	622439-52-5	622439-54-7
622439-56-9	622439-58-1	622439-60-5	622439-62-7	622439-64-9
622439-66-1	622439-68-3	622439-70-7	622439-72-9	622439-74-1
622439-76-3	622439-78-5	622439-80-9	622439-82-1	622439-84-3
622439-86-5	622439-88-7	622439-90-1	622439-92-3	622439-94-5
622439-96-7	622439-98-9	622440-00-0	622440-02-2	622440-04-4
622440-06-6	622440-08-8	622440-10-2	622440-12-4	622440-14-6
622440-16-8	622440-18-0	622440-20-4	622440-22-6	622440-24-8
622440-26-0	622440-28-2	622440-30-6	622440-32-8	622440-34-0
622440-36-2	622440-38-4	622440-40-8	622440-42-0	622440-44-2
622440-46-4	622440-48-6	622440-50-0	622440-52-2	622440-54-4
622440-56-6	622440-58-8	622440-60-2	622440-62-4	622440-64-6
622440-66-8	622440-68-0	622440-70-4	622440-72-6	622440-74-8
622440-76-0	622440-78-2	622440-80-6	622440-82-8	622440-84-0
622440-86-2	622440-88-4	622440-90-8	622440-92-0	622440-94-2
622440-96-4	622440-98-6	622441-00-3	622441-02-5	622441-04-7
622441-06-9	622441-08-1	622441-10-5	622441-12-7	622441-14-9
622441-16-1	622441-18-3	622441-20-7	622441-22-9	622441-24-1
622441-26-3	622441-28-5	622441-30-9	622441-32-1	622441-34-3
622441-36-5	622441-38-7	622441-40-1	622441-42-3	622441-44-5
622441-46-7	622441-48-9	622441-50-3	622441-52-5	622441-54-7
622441-56-9	622441-58-1	622441-60-5	622441-62-7	622441-64-9
622441-66-1	622441-68-3	622441-70-7	622441-72-9	622441-74-1
622441-76-3	622441-78-5	622441-80-9	622441-82-1	622441-84-3
622441-86-5	622441-88-7	622441-90-1	622441-92-3	622441-94-5
622441-96-7	622441-98-9	622442-00-6	622442-02-8	622442-04-0
622442-06-2	622442-08-4	622442-10-8	622442-12-0	622442-14-2
622442-16-4	622442-18-6	622442-20-0	622442-22-2	622442-24-4

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nucleotide **sequence**; nucleic acids and **proteins**
 from Streptococcus groups A & B and their uses as immunogens in
 vaccines, diagnostics, and therapeutics)

IT 622442-26-6	622442-28-8	622442-30-2	622442-32-4	622442-34-6
622442-36-8	622442-38-0	622442-40-4	622442-42-6	622442-44-8
622442-46-0	622442-48-2	622442-50-6	622442-52-8	622442-54-0
622442-56-2	622442-58-4	622442-60-8	622442-62-0	622442-64-2
622442-66-4	622442-68-6	622442-70-0	622442-72-2	622442-74-4
622442-76-6	622442-78-8	622442-80-2	622442-82-4	622442-84-6
622442-86-8	622442-88-0	622442-90-4	622442-92-6	622442-94-8
622442-96-0	622442-98-2	622443-00-9	622443-02-1	622443-04-3
622443-06-5	622443-08-7	622443-10-1	622443-12-3	622443-14-5
622443-16-7	622443-18-9	622443-20-3	622443-22-5	622443-24-7
622443-26-9	622443-28-1	622443-30-5	622443-32-7	622443-34-9
622443-36-1	622443-38-3	622443-40-7	622443-42-9	622443-44-1
622443-46-3	622443-48-5	622443-50-9	622443-52-1	622443-54-3
622443-56-5	622443-58-7	622443-60-1	622443-62-3	622443-64-5
622443-66-7	622443-68-9	622443-70-3	622443-72-5	622443-74-7
622443-76-9	622443-78-1	622443-80-5	622443-82-7	622443-84-9
622443-86-1	622443-88-3	622443-90-7	622443-92-9	622443-94-1
622443-96-3	622443-98-5	622444-00-2	622444-02-4	622444-04-6

622444-06-8	622444-08-0	622444-10-4	622444-12-6	622444-14-8
622444-16-0	622444-18-2	622444-20-6	622444-22-8	622444-24-0
622444-26-2	622444-28-4	622444-30-8	622444-32-0	622444-34-2
622444-36-4	622444-38-6	622444-40-0	622444-42-2	622444-44-4
622444-46-6	622444-48-8	622444-50-2	622444-52-4	622444-54-6
622444-56-8	622444-58-0	622444-60-4	622444-62-6	622444-64-8
622444-66-0	622444-68-2	622444-70-6	622444-72-8	622444-74-0
622444-76-2	622444-78-4	622444-80-8	622444-82-0	622444-84-2
622444-86-4	622444-88-6	622444-90-0	622444-92-2	622444-94-4
622444-96-6	622444-98-8	622445-00-5	622445-02-7	622445-04-9
622445-06-1	622445-08-3	622445-10-7	622445-12-9	622445-13-0
622445-15-2	622445-17-4	622445-19-6	622445-21-0	622445-23-2
622445-25-4	622445-27-6	622445-29-8	622445-31-2	622445-33-4
622445-35-6	622445-37-8	622445-39-0	622445-41-4	622445-43-6
622445-45-8	622445-47-0	622445-49-2	622445-51-6	622445-53-8
622445-55-0	622445-57-2	622445-59-4	622445-61-8	622445-63-0
622445-65-2	622445-67-4	622445-69-6	622445-71-0	622445-73-2
622445-75-4	622445-77-6	622445-79-8	622445-81-2	622445-83-4
622445-85-6	622445-87-8	622445-89-0	622445-91-4	622445-93-6
622445-95-8	622445-97-0	622445-99-2	622446-01-9	622446-03-1
622446-05-3	622446-07-5	622446-09-7	622446-11-1	622446-13-3
622446-15-5	622446-17-7	622446-19-9	622446-21-3	622446-23-5
622446-25-7	622446-27-9	622446-29-1	622446-31-5	622446-33-7
622446-35-9	622446-37-1	622446-39-3	622446-41-7	622446-43-9
622446-45-1	622446-47-3	622446-49-5	622446-51-9	

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nucleotide **sequence**; nucleic acids and **proteins** from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics)

L14 ANSWER 5 OF 27 MEDLINE on STN DUPLICATE 5
 AN 2003538014 MEDLINE
 DN PubMed ID: 14617161
 TI NarE: a novel ADP-ribosyltransferase from *Neisseria meningitidis*

AU Massignani Vega; Balducci Enrico; Di Marcello Federica; Savino Silvana; Serruto Davide; Veggi Daniele; Bambini Stefania; Scarselli Maria; Arico Beatrice; Comanducci Maurizio; Adu-Bobie Jeannette; Giuliani Marzia M; Rappuoli Rino; Pizza Mariagrazia

CS IRIS, Chiron s.r.l, via Fiorentina 1, 53100 Siena, Italy.

SO Molecular microbiology, (2003 Nov) 50 (3) 1055-67.

Journal code: 8712028. ISSN: 0950-382X.

CY England: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200401

ED Entered STN: 20031118

Last Updated on STN: 20040129

Entered Medline: 20040128

AB Mono ADP-ribosyltransferases (ADPRTs) are a class of functionally conserved enzymes present in prokaryotic and eukaryotic organisms. In bacteria, these enzymes often act as potent toxins and play an important role in pathogenesis. Here we report a profile-based computational approach that, assisted by secondary structure predictions, has allowed the identification of a previously undiscovered ADP-ribosyltransferase in *Neisseria meningitidis* (NarE). NarE shows structural homologies with *E. coli* heat-labile enterotoxin (LT) and cholera toxin (CT) and possesses ADP-ribosylating and NAD-glycohydrolase activities. As in the

case of LT and CT, NarE catalyses the transfer of the ADP-ribose moiety to arginine residues. Despite the absence of a signal peptide, the protein is efficiently exported into the periplasm of Neisseria. The narE gene is present in 25 out of 43 strains analysed, is always present in ET-5 and Lineage 3 but absent in ET-37 and Cluster A4 hypervirulent lineages. When present, the gene is 100% conserved in sequence and is inserted upstream of and co-transcribed with the lipoamide dehydrogenase E3 gene. Possible roles in the pathogenesis of N. meningitidis are discussed.

CT ADP Ribose Transferases: DE, drug effects

*ADP Ribose Transferases: GE, genetics

*ADP Ribose Transferases: ME, metabolism

Amino Acid Sequence

Amino Acids: ME, metabolism

Bacterial Toxins: ME, metabolism

Base Sequence

Cholera Toxin: ME, metabolism

Dithiothreitol: PD, pharmacology

Enterotoxins: ME, metabolism

*Escherichia coli Proteins

Magnesium: PD, pharmacology

Molecular Sequence Data

Multigene Family

NAD: ME, metabolism

NAD+ Nucleosidase: ME, metabolism

*Neisseria meningitidis, Serogroup B: EN, enzymology

Neisseria meningitidis, Serogroup B: GE, genetics

Neisseria meningitidis, Serogroup B: PY, pathogenicity

Periplasm: ME, metabolism

Protein Sorting Signals

Sequence Homology, Amino Acid

Substrate Specificity

Virulence: GE, genetics

RN 3483-12-3 (Dithiothreitol); 53-84-9 (NAD); 7439-95-4 (Magnesium);
9012-63-9 (Cholera Toxin)

CN 0 (Amino Acids); 0 (Bacterial Toxins); 0 (Enterotoxins); 0 (Escherichia coli Proteins); 0 (Protein Sorting Signals); 0 (enterotoxin LT); EC 2.4.2.- (ADP Ribose Transferases); EC 2.4.2.- (NarE protein, Neisseria meningitidis); EC 3.2.2.5 (NAD+ Nucleosidase)

L14 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6

AN 2002:906293 HCAPLUS

DN 138:8311

TI Staphylococcus aureus proteins and nucleic acids and their diagnostic and therapeutic uses for staphylococcal infections

IN Masignani, Vega; Mora, Marirosa; Scarselli, Maria

PA Chiron Spa, Italy

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002094868	A2	20021128	WO 2002-IB2637	20020327
	WO 2002094868	A3	20030918		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
 GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
 GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2440368 AA 20021128 CA 2002-2440368 20020327
 EP 1373310 A2 20040102 EP 2002-749141 20020327
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRAI GB 2001-7661 A 20010327
 WO 2002-IB2637 W 20020327
 AB The invention provides 2821 nucleic acid coding sequences from
 Staphylococcus aureus strain NCTC 8325 along with their inferred
 translation products. The proteins are useful for vaccines, immunogenic
 comps., diagnostics, enzymic studies, and also as targets for
 antibiotics.
 IC ICM C07K014-31
 CC 63-3 (Pharmaceuticals)
 Section cross-reference(s): 3, 6, 10, 15
 L14 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
 AN 2002:777973 HCAPLUS
 DN 137:290010
 TI Neisseria gonorrhoeae proteins and nucleic acids and their use for
 diagnosis and treatment by streptococcus bacteria
 IN Fontana, Maria Rita; Pizza, Mariagrazia; Massignani, Vega; Monaci,
 Elisabetta
 PA Chiron Spa, Italy
 SO PCT Int. Appl., 815 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079243	A2	20021010	WO 2002-IB2069	20020212
WO 2002079243	A3	20031113		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2438080 AA 20021010 CA 2002-2438080 20020212 WO 2002079243 A2 20021010 WO 2002-XA2069 20020212 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

EP 1385876 A2 20040204 EP 2002-730631 20020212
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 JP 2004537977 T2 20041224 JP 2002-577867 20020212
 PRAI GB 2001-3424 A 20010212
 WO 2002-IB2069 W 20020212
 AB The invention provides 4211 proteins from gonococcus (Neisseria
 gonorrhoeae strain FA1090), including amino acid sequences, the
 corresponding nucleotide sequences, expression data, and serol. data. One
 hundred fifty-nine of these proteins have no homolog in serogroup B
 meningococcus. The proteins are useful antigens for vaccines, immunogenic
 compns., and/or diagnostics. They are also useful for distinguishing
 between gonococcus and meningococcus and, in particular, between
 gonococcus and serogroup B meningococcus. [This abstract record is one of
 two records for this document necessitated by the large number of index
 entries required to fully index the document and publication system
 constraints.].
 IC ICM C07K014-22
 CC 3-3 (Biochemical Genetics)
 Section cross-reference(s): 1, 6, 9, 10
 L14 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8
 AN 2002:777972 HCAPLUS
 DN 137:290009
 TI ADP-ribosylating bacterial toxins and genes and their uses in vaccines and
 for treatment or prevention of bacterial infections
 IN Masignani, Vega; Pizza, Mariagrazia; Rappuoli, Rino
 PA Chiron Spa, Italy
 SO PCT Int. Appl., 62 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079242	A2	20021010	WO 2002-IB2080	20020328
WO 2002079242	A3	20031106		
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,				
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,				
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,				
GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2442123	AA	20021010	CA 2002-2442123	20020328
EP 1379551	A2	20040114	EP 2002-726389	20020328
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI GB 2001-8024	A	20010330		
WO 2002-IB2080	W	20020328		
AB ADP-ribosylating toxins from Neisseria meningitidis, Streptomyces				
coelicolor, Mycoplasma pneumoniae, Salmonella typhimurium, Salmonella				
paratyphi, and Streptococcus pyogenes are disclosed, together with mutant				
toxins and uses therefor. There is only a low level of sequence identity				
between these toxins and toxins such as cholera toxin and E. coli heat				
labile toxin.				
IC ICM C07K014-195				

CC 3-3 (Biochemical Genetics)
 Section cross-reference(s): 1, 4, 10, 15

ST **sequence** bacteria ADP ribosyltransferase exotoxin gene; vaccine
 mutant Neisseria ADP ribosyltransferase exotoxin

IT Mycoplasma pneumoniae
 Neisseria meningitidis
 Salmonella paratyphi
 Salmonella typhimurium
 Streptococcus pyogenes
 Streptomyces coelicolor
 Vaccines
 (ADP-ribosylating bacterial toxins and genes and their uses in vaccines
 and for treatment or prevention of bacterial infections)

IT **Protein sequences**
 (of ADP-ribosylating bacterial toxins)

IT **DNA sequences**
 (of ADP-ribosylating bacterial toxins genes)

IT 468110-50-1 468110-51-2 468110-52-3 468110-53-4 468110-54-5
 468110-55-6 468110-56-7 468110-57-8 468110-58-9 468110-59-0
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (amino acid **sequence**; ADP-ribosylating bacterial toxins and
 genes and their uses in vaccines and for treatment or prevention of
 bacterial infections)

IT 468110-60-3 468110-61-4 468110-62-5 468110-63-6 468110-64-7
 468110-65-8
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological
 study); USES (Uses)
 (nucleotide **sequence**; ADP-ribosylating bacterial toxins and
 genes and their uses in vaccines and for treatment or prevention of
 bacterial infections)

IT 468140-47-8 468140-48-9 468140-49-0 468140-50-3 468140-51-4
 468140-52-5 468140-53-6 468140-54-7 468140-55-8
 RL: PRP (Properties)
 (unclaimed nucleotide **sequence**; aDP-ribosylating bacterial
 toxins and genes and their uses in vaccines and for treatment or
 prevention of bacterial infections)

IT 468140-46-7
 RL: PRP (Properties)
 (unclaimed **protein sequence**; aDP-ribosylating
 bacterial toxins and genes and their uses in vaccines and for treatment
 or prevention of bacterial infections)

IT 468140-56-9 468140-57-0 468140-58-1 468140-59-2
 RL: PRP (Properties)
 (unclaimed **sequence**; aDP-ribosylating bacterial toxins and
 genes and their uses in vaccines and for treatment or prevention of
 bacterial infections)

L14 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
 AN 2002:754418 HCAPLUS
 DN 137:289983
 TI Complete genome of Streptococcus pneumoniae and its proteins and nucleic
 acids and their uses for diagnosis infection and antibiotic targets
 IN Masignani, Vega; Tettelin, Herve; Fraser, Claire
 PA Chiron Spa, Italy; The Institute for Genomic Research
 SO PCT Int. Appl., 56 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002077021	A2	20021003	WO 2002-IB2163	20020327
	WO 2002077021	A3	20030828		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2439431	AA	20021003	CA 2002-2439431	20020327
	EP 1373513	A2	20040102	EP 2002-735782	20020327
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	GB 2001-7658	A	20010327		
	WO 2002-IB2163	W	20020327		
AB	The invention provides the sequences for 2489 proteins and their genes from Streptococcus pneumoniae type 4 strain JNR.7/87, together with the genome sequence comprising 2,162,598 bases in length. Gene knockout mutants indicate several essential genes which may be of value as preferred antibiotic targets. These proteins and genes are useful for the development of vaccines, diagnostics, and antibiotics.				
IC	ICM C07K014-195				
CC	3-3 (Biochemical Genetics)				
	Section cross-reference(s): 1, 6, 10, 15				
L14	ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10				
AN	2002:359275 HCAPLUS				
DN	137:74443				
TI	Nucleic acids and proteins from group B Streptococcus agalactiae and group A Streptococcus pyogenes				
IN	Telford, John; Masignani, Vega; Margarit Y Ros, Immaculada; Grandi, Guido; Fraser, Claire; Tettelin, Herve				
PA	Chiron S.P.A., Italy; The Institute for Genomic Research				
SO	PCT Int. Appl., 4525 pp.				
	CODEN: PIXXD2				
DT	Patent				
LA	English				
FAN.CNT	3				

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002034771	A2	20020502	WO 2001-XB4789	20011029
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	WO 2002034771	A2	20020502	WO 2001-GB4789	20011029
	WO 2002034771	A3	20030116		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
 UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI GB 2000-26333 A 20001027
 GB 2000-28727 A 20001124
 GB 2001-5640 A 20010307
 WO 2001-GB4789 W 20011029

AB The invention provides proteins from group B streptococcus (*Streptococcus agalactiae*) and group A streptococcus (*Streptococcus pyogenes*), including amino acid sequences and the corresponding nucleotide sequences. The nucleotide sequence of the full genome of *S. agalactiae* strain 2603 V/R is provided as are 5483 protein-coding genes and the amino acid sequences of their protein products. Data are given to show that the proteins are useful antigens for vaccines, immunogenic compns., and/or diagnostics. The proteins are also targets for antibiotics to treat or prevent bacterial infection, and in particular, streptococcal infection. [This abstract record is one of three records for this document necessitated by the large number of index entries required to fully index the document and publication constraints.]

IC C07K014-195

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 6, 10, 15, 63

L14 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:435225 HCAPLUS

DN 138:151815

TI **NadA, a novel vaccine candidate of *Neisseria meningitidis***

AU Comanducci, Maurizio; Bambini, Stefania; Brunelli, Brunella; Adu-Bobie, Jeannette; Arico, Beatrice; Capecchi, Barbara; Giuliani, Marzia Monica; Masignani, Vega; Santini, Laura; Savino, Silvana; Granoff, Dan M.;

Caugant, Dominique A.; Pizza, Mariagrazia; Rappuoli, Rino; Mora, Marirosa

CS Immunological Research Institute Siena, Chiron S.p.A., Siena, 53100, Italy

SO Journal of Experimental Medicine (2002), 195(11), 1445-1454

CODEN: JEMEAV; ISSN: 0022-1007

PB Rockefeller University Press

DT Journal

LA English

AB *Neisseria meningitidis* is a human pathogen, which, in spite of antibiotic therapy, is still a major cause of mortality due to sepsis and meningitis. Here the authors describe NadA, a novel surface antigen of *N. meningitidis* that is present in 52 out of 53 strains of hypervirulent lineages electrophoretic types (ET) ET37, ET5, and cluster A4. The gene is absent in the hypervirulent lineage III, in *N. gonorrhoeae* and in the commensal species *N. lactamica* and *N. cinerea*. The guanine/cytosine content, lower than the chromosome, suggests acquisition by horizontal gene transfer and subsequent limited evolution to generate three well-conserved alleles. NadA has a predicted mol. structure strikingly similar to a novel class of adhesins (YadA and UspA2), forms high mol. weight oligomers, and binds to epithelial cells in vitro supporting the hypothesis that NadA is important for host cell interaction. NadA induces strong bactericidal antibodies and is protective in the infant rat model suggesting that this protein may represent a novel antigen for a vaccine able to control meningococcal disease caused by three hypervirulent lineages.

CC 15-2 (Immunochemistry)

Section cross-reference(s): 3, 10

IT Vaccines

(NadA outer membrane protein of *Neisseria meningitidis*)

IT Human
(NadA outer membrane proteins of *Neisseria meningitidis* binds to epithelial cells of)

IT Proteins
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(NadA; cloning and antigenicity of NadA outer membrane proteins of *Neisseria meningitidis*)

IT *Neisseria meningitidis*
(cloning and antigenicity of NadA outer membrane proteins of)

IT Liver
(epithelium; NadA outer membrane proteins of *Neisseria meningitidis* binds to)

IT DNA sequences
Protein sequences
(for NadA outer membrane proteins of *Neisseria meningitidis*)

IT Gene, microbial
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nadA; of *Neisseria meningitidis*)

IT Self-association
(of NadA outer membrane proteins of *Neisseria meningitidis*)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(to NadA outer membrane proteins of *Neisseria meningitidis*)

IT Liver
(toxicity, epithelium; NadA outer membrane proteins of *Neisseria meningitidis* binds to)

IT 439086-75-6 486654-81-3 486654-83-5 486654-85-7 486654-88-0
486654-90-4 486654-92-6 486654-94-8 486654-96-0 486654-98-2
486655-01-0 486655-03-2 486655-06-5 486655-08-7 486655-10-1
486655-11-2 486655-13-4 486655-14-5 486655-17-8 486655-19-0
486655-21-4 486655-23-6 486655-26-9 486655-27-0 486655-28-1
486655-30-5 486655-32-7 486655-33-8 486655-35-0 486655-36-1
486655-37-2 486655-39-4 486655-43-0 486655-45-2 486655-47-4
486655-49-6 486655-50-9 486655-52-1 486655-53-2 486655-54-3
486655-56-5 486655-57-6 486655-59-8 486655-60-1 486655-62-3
486655-64-5 486655-66-7 486655-68-9
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; cloning and antigenicity of NadA outer membrane proteins of *Neisseria meningitidis*)

IT 431971-15-2, GenBank AF452465 431971-17-4, GenBank AF452466
431971-18-5, GenBank AF452467 431971-19-6, GenBank AF452468
431971-20-9, GenBank AF452469 431971-22-1, GenBank AF452470
431971-23-2, GenBank AF452471 431971-24-3, GenBank AF452472
431971-25-4, GenBank AF452473 431971-27-6, GenBank AF452474
431971-28-7, GenBank AF452475 431971-29-8, GenBank AF452476
431971-30-1, GenBank AF452477 431971-32-3, GenBank AF452478
431971-33-4, GenBank AF452479 431971-34-5, GenBank AF452480
431971-35-6, GenBank AF452481 431971-36-7, GenBank AF452482
431971-37-8, GenBank AF452483 431971-38-9, GenBank AF452484
431971-39-0, GenBank AF452485 431971-40-3, GenBank AF452486
431971-41-4, GenBank AF452487 431971-42-5, GenBank AF452488
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; cloning and antigenicity of NadA outer membrane proteins of *Neisseria meningitidis*)

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 11

AN 2001:661633 HCAPLUS

DN 135:239144

TI Proteins of Neisseria and their manufacture by expression of the cloned genes

IN Arico, Maria Beatrice; Comanducci, Maurizio; Galeotti, Cesira; Masignani, Vega; Guilianani, Marzia Monica; Pizza, Mariagrazia

PA Chiron Spa, Italy

SO PCT Int. Appl., 119 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064922	A2	20010907	WO 2001-IB452	20010228
	WO 2001064922	A3	20011206		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2400570	AA	20010907	CA 2001-2400570	20010228
	EP 1259627	A2	20021127	EP 2001-914109	20010228
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003525050	T2	20030826	JP 2001-563611	20010228
	BR 2001008711	A	20040622	BR 2001-8711	20010228
	US 2004110670	A1	20040610	US 2003-220481	20030813
PRAI	GB 2000-4695	A	20000228		
	GB 2000-27675	A	20001113		
	WO 2001-IB452	W	20010228		

AB Alternative and improved approaches to the manufacture of proteins of Neisseria meningitidis and Neisseria gonorrhoeae by expression of the cloned gene are described. These approaches typically affect the level of expression, the ease of purification, the cellular localization, and/or the immunol. properties of the protein. Manufacture and characterization of a number of proteins of a group B Neisseria meningitidis is demonstrated. Conditions for the manufacture of individual proteins were optimized as necessary, e.g. protein 919 was identified as a murine hydrolase that lysed host cells at 37°, but not at 30°.

IC ICM C12N015-70

ICS C07K014-22; C07K019-00

CC 10-1 (Microbial, Algal, and Fungal Biochemistry)

Section cross-reference(s): 3, 6

ST Neisseria protein manuf transgenic host; signal peptide

Neisseria protein secretory manuf; sequence

lipoprotein Neisseria; murein hydrolase Neisseria manuf

IT Neisseria meningitidis

(group B; proteins of Neisseria and their manufacture by expression of cloned genes)

IT Lipoproteins

RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)

(of *Neisseria meningitidis*; proteins of *Neisseria* and their manufacture by expression of cloned genes)

IT Protein sequences

(of proteins of group B *Neisseria meningitidis*; proteins of *Neisseria* and their manufacture by expression of cloned genes)

IT Gene, microbial

RL: BSU (Biological study, unclassified); BIOL (Biological study) (ompA, signal sequence of; proteins of *Neisseria* and their manufacture by expression of cloned genes)

IT Gene, microbial

RL: BSU (Biological study, unclassified); BIOL (Biological study) (pelB, signal sequence of; proteins of *Neisseria* and their manufacture by expression of cloned genes)

L14 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 12

AN 2002:177513 HCAPLUS

DN 136:215403

TI Antigenic peptides from *Neisseria meningitidis* and *Neisseria gonorrhoeae*

IN Galeotti, Cesira; Grandi, Guido; Masignani, Vega; Mora, Mariarosa; Pizza, Mariagrazia; Rappuoli, Rino; Ratti, Giulio; Scarlato, Vincenzo; Scarselli, Maria

PA Chiron Spa, Italy

SO PCT Int. Appl., 974 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001031019	A2	20010503	WO 2000-IB1661	20001030
	WO 2001031019	A3	20011227		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2389321	AA	20010503	CA 2000-2389321	20001030
	EP 1226253	A2	20020731	EP 2000-973143	20001030
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
	BR 2000015137	A	20030325	BR 2000-15137	20001030
	JP 2004508801	T2	20040325	JP 2001-533999	20001030
PRAI	US 1999-162616P	P	19991029		
	WO 2000-IB1661	W	20001030		

AB This invention provides proteins and fragments thereof derived from the bacteria *Neisseria meningitidis* serotype A, *N. meningitidis* serotype B, and *N. gonorrhoeae*. The protein sequences disclosed in International Application patents WO 1999/57280 and WO 2000/22430 were subjected to computer analysis to predict antigenic peptide fragments, using three algorithms: AMPHI, ANTIGENIC INDEX, and HYDROPHOBICITY. Also provided are nucleic acids encoding for such proteins, polypeptides, and/or fragments, as well as nucleic acids complementary thereto (e.g., antisense nucleic acids). Addnl., this invention provides antibodies which bind to the proteins, polypeptides, and/or fragments. This invention further provides expression vectors useful for making the proteins, polypeptides, and/or

fragments, as well as host cells transformed with such vectors. This invention also provides compns. of the protein fragments and/or nucleic acids for use as vaccines, diagnostic reagents, immunogenic compns., and the like. [This abstract record is the eighth of 8 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.]

IC ICM C12N015-31
ICS C07K014-22; C07K016-12; A61K039-095; A61K039-40; A61K048-00;
G01N033-53; G01N033-569
CC 15-2 (Immunochemistry)
Section cross-reference(s): 10

L14 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13

AN 2001:50820 HCAPLUS

DN 134:126821

TI Antigenic determinants of antigenic proteins of Neisseria meningitidis and their diagnostic, prophylactic and therapeutic use

IN Masignani, Vega; Scarlato, Vincenzo; Scarselli, Maria; Galeotti, Cesira; Mora, Mariarosa

PA Chiron S.p.A., Italy

SO PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001004316	A2	20010118	WO 2000-IB1026	20000713
	WO 2001004316	A3	20010809		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2378547	AA	20010118	CA 2000-2378547	20000713
	EP 1196587	A2	20020417	EP 2000-944161	20000713
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	BR 2000012424	A	20020702	BR 2000-12424	20000713
	JP 2003504062	T2	20030204	JP 2001-509520	20000713
PRAI	GB 1999-16529	A	19990714		
	WO 2000-IB1026	W	20000713		

AB Antigenic determinants of known antigenic proteins of Neisseria meningitidis are characterized. The peptides can be used as diagnostic reagents or as antigens for vaccines and they may be manufactured by expression of a natural or synthetic gene encoding the protein. Homologous sequences and proteins comprising these fragments are also disclosed.

IC ICM C12N015-31
ICS C07K014-22; G01N033-53; C12Q001-68; C07K016-12; A61K039-095; A61K039-395; A61K048-00

CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 6, 10, 15, 63

ST Neisseria antigen epitope meningitis vaccine; diagnosis meningitis Neisseria antigen

IT Diagnosis

(agents; antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT Antibacterial agents
Drug screening
Neisseria
Neisseria meningitidis
Vaccines
(antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT Gene, microbial
Proteins, general, biological studies
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT Antibodies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT Meningitis
(bacterial; antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT *Neisseria meningitidis*
(group A; antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT *Neisseria meningitidis*
(group B; antigenic determinants of antigenic proteins of *Neisseria meningitidis* and their diagnostic, prophylactic and therapeutic use)

IT 3146-40-5 6511-06-4 13448-27-6 16422-05-2 16716-54-4 17662-44-1
20274-80-0 21835-35-8 23642-44-6 23828-14-0 26848-21-5
28636-00-2 32214-51-0 33891-85-9 37460-22-3 39825-68-8
40211-21-0 47541-65-1 54865-20-2 55488-08-9 57625-91-9
58872-43-8 66863-82-9 67035-49-8 68375-68-8 72748-97-1
73027-21-1 78658-41-0 85530-73-0 85807-16-5 85807-50-7
91408-60-5 92650-48-1 97185-95-0 99092-26-9 106326-02-7
106326-76-5 110862-98-1 121822-47-7 122061-62-5 125551-93-1
126855-29-6 127103-05-3 129598-57-8 130488-05-0 130508-66-6
131768-81-5 137507-94-9 138845-33-7 140869-10-9 143689-60-5
146790-81-0 148382-77-8 148777-88-2 152583-45-4 153150-91-5
156826-36-7 158734-09-9 164366-68-1 172924-54-8 175175-90-3
175176-16-6 176951-60-3 185250-66-2 186698-51-1 194041-51-5
20062-44-8 210880-19-6 210887-92-6 210888-18-9 214076-20-7
216165-54-7 245036-48-0 247073-75-2 249927-00-2 251471-80-4
251471-82-6 260271-23-6 321752-03-8 321862-11-7 321862-18-4
321862-21-9 321862-25-3 321862-26-4 321862-27-5 321866-77-7
321866-79-9 321866-81-3 321866-83-5 321866-85-7 321866-87-9

321866-89-1	321866-91-5	321866-94-8	321866-96-0	321866-98-2
321867-00-9	321867-02-1	321867-04-3	321867-06-5	321867-08-7
321867-09-8	321867-10-1	321867-11-2	321867-12-3	321867-13-4
321867-14-5	321867-15-6	321867-16-7	321867-17-8	321867-18-9
321867-19-0	321867-21-4	321867-23-6	321867-25-8	321867-27-0
321867-28-1	321867-29-2	321867-30-5	321867-31-6	321867-32-7
321867-33-8	321867-34-9	321867-35-0	321867-36-1	321867-37-2
321867-38-3	321867-39-4	321867-40-7	321867-41-8	321867-42-9
321867-43-0	321867-44-1	321867-45-2	321867-46-3	321867-47-4
321867-48-5	321867-49-6	321867-50-9	321867-51-0	321867-52-1
321867-53-2	321867-54-3	321867-55-4	321867-56-5	321867-57-6
321867-58-7	321867-59-8	321867-60-1	321867-61-2	321867-62-3
321867-63-4	321867-64-5	321867-65-6	321867-66-7	321867-67-8
321867-68-9	321867-69-0	321867-70-3	321867-71-4	321867-72-5
321867-73-6	321867-74-7	321867-75-8	321867-76-9	321867-77-0
321867-78-1	321867-79-2	321867-80-5	321867-81-6	321867-82-7
321867-83-8	321867-85-0	321867-86-1	321867-87-2	321867-88-3
321867-89-4	321867-90-7	321867-92-9	321867-94-1	321867-96-3
321867-99-6	321868-00-2	321868-01-3	321868-02-4	321868-04-6
321868-06-8	321868-07-9	321868-08-0	321868-09-1	321868-10-4
321868-11-5	321868-12-6	321868-13-7	321868-14-8	321868-15-9
321868-16-0	321868-17-1	321868-18-2	321868-19-3	321868-20-6
321868-21-7	321868-22-8	321868-23-9	321868-24-0	321868-25-1
321868-26-2	321868-27-3	321868-28-4	321868-29-5	321868-30-8
321868-31-9	321868-32-0	321868-33-1	321868-34-2	321868-35-3
321868-36-4	321868-38-6	321868-40-0	321868-41-1	321868-42-2
321868-44-4	321868-45-5	321868-46-6	321868-50-2	321868-52-4
321868-55-7	321868-57-9	321868-58-0	321868-60-4	321868-62-6
321868-64-8	321868-65-9	321868-66-0	321868-68-2	

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid sequence, antigenic peptide of
~~Neisseria meningitidis~~; antigenic determinants of antigenic
 proteins of ~~Neisseria meningitidis~~ and their
 diagnostic, prophylactic and therapeutic use)

IT	321868-70-6	321868-72-8	321868-73-9	321868-74-0	321868-75-1
	321868-76-2	321868-77-3	321868-78-4	321868-79-5	321868-80-8
	321868-81-9	321868-82-0	321868-83-1	321868-84-2	321868-85-3
	321868-86-4	321868-87-5	321868-88-6	321868-89-7	321868-90-0
	321868-91-1	321868-92-2	321868-93-3	321868-94-4	321868-95-5
	321868-96-6	321868-97-7	321868-98-8	321868-99-9	321869-00-5
	321869-02-7	321869-03-8	321869-05-0	321869-06-1	321869-08-3
	321869-10-7	321869-12-9	321869-14-1	321869-15-2	321869-16-3
	321869-17-4	321869-18-5	321869-19-6	321869-20-9	321869-21-0
	321869-22-1	321869-23-2	321869-24-3	321869-25-4	321869-26-5
	321869-27-6	321869-28-7	321869-29-8	321869-30-1	321869-31-2
	321869-32-3	321869-33-4	321869-34-5	321869-35-6	321869-36-7
	321869-37-8	321869-38-9	321869-39-0	321869-40-3	321869-41-4
	321869-42-5	321869-43-6	321869-44-7	321869-45-8	321869-46-9
	321869-47-0	321869-48-1	321869-49-2	321869-50-5	321869-51-6
	321869-52-7	321869-53-8	321869-54-9	321869-55-0	321869-56-1
	321869-57-2	321869-58-3	321869-59-4	321869-60-7	321869-61-8
	321869-62-9	321869-63-0	321869-64-1	321869-65-2	321869-66-3
	321869-67-4	321869-68-5	321869-69-6	321869-70-9	321869-71-0
	321869-72-1	321869-73-2	321869-74-3	321869-76-5	321869-77-6
	321869-78-7	321869-79-8	321869-80-1	321869-81-2	321869-82-3
	321869-83-4	321869-84-5	321869-85-6	321869-86-7	321869-87-8
	321869-88-9	321869-89-0	321869-90-3	321869-91-4	321869-92-5
	321869-93-6	321869-94-7	321869-95-8	321869-96-9	321869-97-0

321869-98-1	321869-99-2	321870-00-2	321870-01-3	321870-02-4
321870-03-5	321870-04-6	321870-05-7	321870-06-8	321870-07-9
321870-08-0	321870-09-1	321870-10-4	321870-11-5	321870-12-6
321870-13-7	321870-14-8	321870-15-9	321870-16-0	321870-17-1
321870-18-2	321870-19-3	321870-20-6	321870-21-7	321870-22-8
321870-23-9	321870-24-0	321870-25-1	321870-26-2	321870-27-3
321870-28-4	321870-30-8	321870-33-1	321870-37-5	321870-42-2
321870-46-6	321870-51-3	321870-53-5	321870-55-7	321870-58-0
321870-62-6	321870-65-9	321870-70-6	321870-74-0	321870-76-2
321870-78-4	321870-79-5	321870-80-8	321870-81-9	321870-82-0
321870-83-1	321870-84-2	321870-85-3	321870-86-4	321870-87-5
321870-88-6	321870-89-7	321870-90-0	321870-91-1	321870-92-2
321870-93-3	321870-94-4	321870-95-5	321870-96-6	321870-97-7
321870-98-8	321870-99-9	321871-00-5	321871-01-6	321871-02-7
321871-03-8	321871-04-9	321871-05-0	321871-06-1	321871-07-2
321871-08-3	321871-09-4	321871-10-7	321871-11-8	321871-12-9
321871-13-0	321871-14-1	321871-15-2	321871-16-3	321871-17-4
321871-18-5	321871-19-6	321871-20-9	321871-21-0	321871-22-1
321871-23-2	321871-24-3	321871-25-4	321871-26-5	321871-27-6
321871-28-7	321871-29-8	321871-30-1	321871-31-2	321871-32-3
321871-34-5	321871-36-7	321871-37-8	321871-39-0	321871-41-4
321871-44-7	321871-45-8	321871-46-9	321871-47-0	321871-48-1
321871-50-5	321871-51-6	321871-52-7	321871-53-8	321871-54-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid sequence, antigenic peptide of
Neisseria meningitidis; antigenic determinants of antigenic
proteins of Neisseria meningitidis and their
diagnostic, prophylactic and therapeutic use)

IT	321871-55-0	321871-56-1	321871-57-2	321871-58-3	321871-59-4
	321871-60-7	321871-61-8	321871-62-9	321871-63-0	321871-64-1
	321871-65-2	321871-66-3	321871-67-4	321871-68-5	321871-69-6
	321871-70-9	321871-71-0	321871-72-1	321871-73-2	321871-74-3
	321871-75-4	321871-76-5	321871-77-6	321871-78-7	321871-79-8
	321871-80-1	321871-81-2	321871-82-3	321871-83-4	321871-84-5
	321871-85-6	321871-86-7	321871-87-8	321871-88-9	321871-89-0
	321871-90-3	321871-91-4	321871-92-5	321871-93-6	321871-94-7
	321871-95-8	321871-96-9	321871-97-0	321871-98-1	321871-99-2
	321872-00-8	321872-01-9	321872-02-0	321872-03-1	321872-04-2
	321872-05-3	321872-06-4	321872-07-5	321872-08-6	321872-09-7
	321872-10-0	321872-11-1	321872-12-2	321872-13-3	321872-14-4
	321872-15-5	321872-16-6	321872-17-7	321872-18-8	321872-19-9
	321872-20-2	321872-21-3	321872-22-4	321872-23-5	321872-24-6
	321872-25-7	321872-26-8	321872-27-9	321872-28-0	321872-29-1
	321872-30-4	321872-31-5	321872-32-6	321872-33-7	321872-34-8
	321872-35-9	321872-36-0	321872-37-1	321872-38-2	321872-39-3
	321872-40-6	321872-41-7	321872-42-8	321872-43-9	321872-44-0
	321872-45-1	321872-46-2	321872-47-3	321872-48-4	321872-49-5
	321872-50-8	321872-52-0	321872-53-1	321872-55-3	321872-58-6
	321872-60-0	321872-61-1	321872-63-3	321872-67-7	321872-69-9
	321872-71-3	321872-73-5	321872-75-7	321872-76-8	321872-77-9
	321872-78-0	321872-79-1	321872-80-4	321872-81-5	321872-82-6
	321872-83-7	321872-84-8	321872-85-9	321872-86-0	321872-88-2
	321872-89-3	321872-90-6	321872-91-7	321872-92-8	321872-93-9
	321872-94-0	321872-95-1	321872-96-2	321872-97-3	321872-98-4
	321872-99-5	321873-00-1	321873-01-2	321873-02-3	321873-03-4
	321873-04-5	321873-05-6	321873-06-7	321873-07-8	321873-08-9
	321873-12-5	321873-13-6	321873-14-7	321873-15-8	321873-16-9
	321873-17-0	321873-18-1	321873-19-2	321873-20-5	321873-21-6

321873-22-7	321873-23-8	321873-24-9	321873-25-0	321873-26-1
321873-27-2	321873-28-3	321873-29-4	321873-30-7	321873-31-8
321873-32-9	321873-33-0	321873-34-1	321873-35-2	321873-36-3
321873-37-4	321873-38-5	321873-39-6	321873-40-9	321873-41-0
321873-42-1	321873-43-2	321873-44-3	321873-45-4	321873-46-5
321873-47-6	321873-48-7	321873-49-8	321873-50-1	321873-51-2
321873-52-3	321873-53-4	321873-54-5	321873-55-6	321873-56-7
321873-57-8	321873-58-9	321873-59-0	321873-60-3	321873-61-4
321873-62-5	321873-64-7	321873-66-9	321873-68-1	321873-70-5
321873-72-7	321873-74-9	321873-76-1	321873-78-3	321873-80-7
321873-82-9	321873-84-1	321873-87-4	321873-89-6	321873-91-0
321873-93-2	321873-95-4	321873-97-6	321873-99-8	321874-01-5
321874-03-7	321874-05-9	321874-07-1	321874-09-3	321874-11-7
321874-13-9	321874-15-1	321874-18-4	321874-20-8	321874-22-0
321874-24-2	321874-26-4	321874-28-6	321874-30-0	321874-32-2
321874-34-4	321874-37-7	321874-39-9	321874-41-3	321874-43-5
321874-45-7	321874-47-9	321874-49-1	321874-51-5	321874-53-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid **sequence**, antigenic **peptide** of **Neisseria meningitidis**; antigenic determinants of antigenic **proteins** of **Neisseria meningitidis** and their diagnostic, prophylactic and therapeutic use)

IT	321874-55-9	321874-57-1	321874-59-3	321874-61-7	321874-63-9
	321874-65-1	321874-67-3	321874-69-5	321874-71-9	321874-73-1
	321874-75-3	321874-77-5	321874-79-7	321874-81-1	321874-83-3
	321874-87-7	321874-89-9	321874-91-3	321874-93-5	321874-95-7
	321874-97-9	321874-99-1	321875-01-8	321875-03-0	321875-05-2
	321875-08-5	321875-11-0	321875-13-2	321875-15-4	321875-17-6
	321875-19-8	321875-21-2	321875-23-4	321875-25-6	321875-27-8
	321875-29-0	321875-31-4	321875-33-6	321875-35-8	321875-37-0
	321875-39-2	321875-41-6	321875-43-8	321875-45-0	321875-47-2
	321875-49-4	321875-51-8	321875-54-1	321875-56-3	321875-58-5
	321875-60-9	321875-62-1	321875-65-4	321875-69-8	321875-72-3
	321875-75-6	321875-85-8	321875-89-2	321875-91-6	321875-95-0
	321875-97-2	321876-00-0	321876-03-3	321876-09-9	321876-11-3
	321876-13-5	321876-16-8	321876-18-0	321876-20-4	321876-22-6
	321876-24-8	321876-26-0	321876-28-2	321876-30-6	321876-33-9
	321876-35-1	321876-37-3	321876-39-5	321876-41-9	321876-43-1
	321876-47-5	321876-49-7	321876-51-1	321876-53-3	321876-55-5
	321876-57-7	321876-59-9	321876-61-3	321876-64-6	321876-66-8
	321876-68-0	321876-71-5	321876-73-7	321876-75-9	321876-77-1
	321876-79-3	321876-81-7	321876-83-9	321876-85-1	321876-87-3
	321876-89-5	321876-91-9	321876-93-1	321876-95-3	321876-97-5
	321876-99-7	321877-01-4	321877-03-6	321877-05-8	321877-07-0
	321877-09-2	321877-12-7	321877-15-0	321877-17-2	321877-19-4
	321877-21-8	321877-23-0	321877-25-2	321877-27-4	321877-29-6
	321877-31-0	321877-33-2	321877-36-5	321877-38-7	321877-40-1
	321877-42-3	321877-45-6	321877-47-8	321877-49-0	321877-51-4
	321877-53-6	321877-55-8	321877-57-0	321877-59-2	321877-61-6
	321877-63-8	321877-66-1	321877-68-3	321877-70-7	321877-72-9
	321877-74-1	321877-76-3	321877-78-5	321877-80-9	321877-83-2
	321877-85-4	321877-87-6	321877-89-8	321877-91-2	321877-93-4
	321877-95-6	321877-97-8	321877-99-0	321878-01-7	321878-03-9
	321878-05-1	321878-07-3	321878-09-5	321878-11-9	321878-13-1
	321878-15-3	321878-17-5	321878-19-7	321878-21-1	321878-23-3
	321878-25-5	321878-27-7	321878-29-9	321878-31-3	321878-33-5
	321878-35-7	321878-37-9	321878-39-1	321878-41-5	321878-43-7
	321878-45-9	321878-47-1	321878-49-3	321878-51-7	321878-52-8

321878-54-0	321878-56-2	321878-58-4	321878-61-9	321878-64-2
321878-66-4	321878-68-6	321878-70-0	321878-72-2	321878-74-4
321878-76-6	321878-78-8	321878-80-2	321878-82-4	321878-84-6
321878-86-8	321878-88-0	321878-90-4	321878-92-6	321878-94-8
321878-96-0	321878-99-3	321879-02-1	321879-05-4	321879-07-6
321879-09-8	321879-12-3	321879-14-5	321879-16-7	321879-19-0
321879-20-3	321879-21-4	321879-22-5	321879-24-7	321879-27-0
321879-29-2	321879-30-5	321879-33-8	321879-34-9	321879-36-1
321879-38-3	321879-40-7	321879-42-9	321879-45-2	321879-48-5
321879-51-0	321879-54-3	321879-56-5	321879-58-7	321879-60-1
321879-62-3	321879-64-5	321879-66-7	321879-69-0	321879-71-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid sequence, antigenic peptide of
Neisseria meningitidis; antigenic determinants of antigenic
 proteins of *Neisseria meningitidis* and their
 diagnostic, prophylactic and therapeutic use)

IT	321879-73-6	321879-75-8	321879-77-0	321879-79-2	321879-81-6
	321879-83-8	321879-85-0	321879-87-2	321879-89-4	321879-90-7
	321879-92-9	321879-95-2	321879-97-4	321879-99-6	321880-01-7
	321880-03-9	321880-05-1	321880-07-3	321880-09-5	321880-11-9
	321880-13-1	321880-15-3	321880-17-5	321880-19-7	321880-21-1
	321880-22-2	321880-25-5	321880-27-7	321880-29-9	321880-31-3
	321880-34-6	321880-37-9	321880-40-4	321880-42-6	321880-44-8
	321880-46-0	321880-48-2	321880-50-6	321880-53-9	321880-55-1
	321880-58-4	321880-59-5	321880-60-8	321880-62-0	321880-64-2
	321880-67-5	321880-69-7	321880-71-1	321880-73-3	321880-75-5
	321880-77-7	321880-79-9	321880-81-3	321880-84-6	321880-86-8
	321880-88-0	321880-90-4	321880-94-8	321880-95-9	321880-97-1
	321880-99-3	321881-01-0	321881-03-2	321881-05-4	321881-07-6
	321881-08-7	321881-09-8	321881-10-1	321881-11-2	321881-12-3
	321881-13-4	321881-14-5	321881-15-6	321881-16-7	321881-17-8
	321881-18-9	321881-19-0	321881-20-3	321881-21-4	321881-24-7
	321881-30-5	321881-31-6	321881-36-1	321881-37-2	321881-38-3
	321881-39-4	321881-40-7	321881-41-8	321881-43-0	321881-44-1
	321881-46-3	321881-47-4	321881-48-5	321881-49-6	321881-50-9
	321881-51-0	321881-52-1	321881-53-2	321881-58-7	321881-59-8
	321881-60-1	321881-61-2	321881-62-3	321881-63-4	321881-64-5
	321881-65-6	321881-66-7	321884-74-6	321884-75-7	321884-76-8
	321884-77-9	321884-78-0	321884-79-1	321884-80-4	321884-81-5
	321884-82-6	321884-83-7	321884-84-8	321884-85-9	321884-86-0
	321884-87-1	321884-88-2	321884-89-3	321884-90-6	321884-91-7
	321884-92-8	321884-93-9	321884-94-0	321884-95-1	321884-96-2
	321912-93-0	321913-43-3	321913-46-6	321913-47-7	321913-53-5
	321913-55-7	321913-56-8	321913-57-9	321913-58-0	321913-59-1
	321913-59-1	321913-63-7	321913-65-9	321913-66-0	321914-05-0
	321914-15-2	321914-18-5	321914-19-6	321914-20-9	321914-21-0
	321914-21-0	321914-23-2	321914-24-3	321914-25-4	321914-27-6
	321914-28-7	321914-29-8	321914-30-1	321914-32-3	321914-34-5
	321914-35-6	321914-46-9	321914-48-1	321914-49-2	321914-50-5
	321914-53-8	321914-53-8	321914-54-9	321914-58-3	321914-59-4
	321914-72-1	321914-74-3	321914-86-7	321914-91-4	321915-03-1
	321915-04-2	321915-05-3	321915-06-4	321915-07-5	321915-25-7
	321915-32-6	321915-36-0	321915-37-1	321915-38-2	321915-39-3
	321915-43-9	321915-44-0	321915-45-1	321915-46-2	321915-47-3
	321915-47-3	321915-48-4	321915-94-0	321915-95-1	321916-00-1
	321916-01-2	321916-02-3	321916-03-4	321916-04-5	321916-05-6
	321916-06-7	321916-08-9	321916-09-0	321916-12-5	321916-13-6
	321916-15-8	321916-16-9	321916-18-1	321916-19-2	321916-20-5

321916-21-6 321916-23-8 321916-25-0 321916-30-7 321916-62-5
321916-64-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid **sequence**, antigenic **peptide** of **Neisseria meningitidis**; antigenic determinants of antigenic **proteins** of **Neisseria meningitidis** and their diagnostic, prophylactic and therapeutic use)

L14 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:661631 HCAPLUS

DN 135:237577

TI Manufacture of **proteins** of **Neisseria** as fusion **proteins** without the use of non-**Neisseria** **sequences**

IN Arico, Maria Beatrice; Comanducci, Maurizio; Galeotti, Cesira; **Masignani, Vega**; Giuliani, Marzia Monica; Pizza, Mariagrazia

PA Chiron S.p.A., Italy

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064920	A2	20010907	WO 2001-IB420	20010228
	WO 2001064920	A3	20020314		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2400562	AA	20010907	CA 2001-2400562	20010228
	EP 1261723	A2	20021204	EP 2001-914098	20010228
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003525049	T2	20030826	JP 2001-563609	20010228
	BR 2001008713	A	20040622	BR 2001-8713	20010228
	NZ 521396	A	20040625	NZ 2001-521396	20010228
	US 2004092711	A1	20040513	US 2003-220480	20030519
PRAI	GB 2000-4695	A	20000228		
	GB 2000-27675	A	20001113		
	WO 2001-IB420	W	20010228		
AB	The manufacture of open reading frame proteins of <i>Neisseria</i> (<i>N. meningitidis</i> or <i>N. gonorrhoeae</i>) as fusion proteins is using <i>Escherichia coli</i> as the expression host described. Preferably, the fusion proteins do not have any non- <i>Neisseria</i> proteins, such as hexahistidine or glutathione-S-transferase moieties. The removal of polyglycine tracts from the proteins greatly increases yields of the fusion products. Preparation of a number of chimeric genes and the corresponding proteins using <i>Escherichia coli</i> as expression host is described.				
IC	ICM C12N015-62				
	ICS C07K014-22; C07K019-00				
CC	3-2 (Biochemical Genetics)				
	Section cross-reference(s): 10, 15, 16				
IT	Gene, microbial				

- RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric, for fusion products of open-reading frame **proteins**
; manufacture of **proteins** of *Neisseria* as fusion **proteins**
without non-*Neisseria* **sequences**)
- IT *Escherichia coli*
(expression host; manufacture of **proteins** of *Neisseria* as fusion
proteins without non-*Neisseria* **sequences**)
- IT **DNA sequences**
(for fusion **proteins** of *Neisseria meningitidis*;
manufacture of **proteins** of *Neisseria* as fusion **proteins**
without non-*Neisseria* **sequences**)
- IT *Neisseria*
Neisseria gonorrhoeae
Neisseria meningitidis
(manufacture of **proteins** of *Neisseria* as fusion **proteins**
without use of non-*Neisseria* **sequences**)
- IT **Fusion proteins** (chimeric **proteins**)
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manufacture of **proteins** of *Neisseria* as fusion **proteins**
without use of non-*Neisseria* **sequences**)
- IT Chimeric gene
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(microbial, for fusion products of open-reading frame **proteins**
; manufacture of **proteins** of *Neisseria* as fusion **proteins**
without non-*Neisseria* **sequences**)
- IT **Protein sequences**
(of fusion **proteins** of *Neisseria meningitidis*;
manufacture of **proteins** of *Neisseria* as fusion **proteins**
without use of non-*Neisseria* **sequences**)
- IT **Proteins, specific or class**
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(open-reading frame, fusion products; manufacture of **proteins** of
Neisseria as fusion **proteins** without use of non-*Neisseria*
sequences)
- IT Fermentation
(**protein**, of fusion products of open-reading frame
proteins of *Neisseria*; manufacture of **proteins** of
Neisseria as fusion **proteins** without use of non-*Neisseria*
sequences)
- IT 359923-93-6
RL: PRP (Properties)
(Unclaimed; manufacture of **proteins** of *Neisseria* as fusion
proteins without the use of non-*Neisseria* **sequences**)
- IT 359921-48-5P 359921-50-9P 359921-52-1P 359921-54-3P 359921-56-5P
359921-57-6P 359921-59-8P 359921-61-2P 359921-63-4P 359921-65-6P
359921-67-8P 359921-69-0P 359921-71-4P 359921-72-5P 359921-74-7P
359921-76-9P 359921-78-1P 359921-80-5P 359921-82-7P 359921-84-9P
359921-86-1P 359921-87-2P 359921-89-4P 359921-91-8P 359921-92-9P
359921-94-1P
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(amino acid **sequence**; manufacture of **proteins** of
Neisseria as fusion **proteins** without use of non-*Neisseria*
sequences)
- IT 56-40-6D, Glycine, polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(deletion of, in fusion **proteins**; manufacture of **proteins** of *Neisseria* as fusion **proteins** without use of non-*Neisseria* sequences)

IT 359461-99-7 359921-47-4 359921-49-6 359921-51-0 359921-53-2
359921-55-4 359921-58-7 359921-60-1 359921-62-3 359921-64-5
359921-66-7 359921-68-9 359921-70-3 359921-73-6 359921-75-8
359921-77-0 359921-79-2 359921-81-6 359921-83-8 359921-85-0
359921-88-3 359921-90-7 359921-93-0

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(nucleotide **sequence**; manufacture of **proteins** of *Neisseria* as fusion **proteins** without use of non-*Neisseria* sequences)

IT 311356-20-4, 28: PN: WO0071725 PAGE: 58 unclaimed DNA 359923-96-9
359923-97-0 359923-98-1 359923-99-2 359924-00-8 359924-01-9
359924-02-0 359924-03-1

RL: PRP (Properties)

(unclaimed nucleotide **sequence**; manufacture of **proteins** of *Neisseria* as fusion **proteins** without the use of non-*Neisseria* sequences)

IT 359923-91-4 359923-92-5 359923-94-7 359923-95-8

RL: PRP (Properties)

(unclaimed **protein sequence**; manufacture of **proteins** of *Neisseria* as fusion **proteins** without the use of non-*Neisseria* sequences)

L14 ANSWER 16 OF 27 MEDLINE on STN DUPLICATE 14

AN 2001208178 MEDLINE

DN PubMed ID: 11254622

TI Mu-like Prophage in serogroup B *Neisseria meningitidis* coding for surface-exposed antigens.

AU Maignani V; Giuliani M M; Tettelin H; Comanducci M; Rappuoli R; Scarlato V

CS Department of Molecular Biology, IRIS, Chiron S.p.A., 53100 Siena, Italy.

SO Infection and immunity; (2001 Apr) 69 (4) 2580-8.

Journal code: 0246127. ISSN: 0019-9567.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200104

ED Entered STN: 20010417

Last Updated on STN: 20010417

Entered Medline: 20010412

AB **Sequence analysis of the genome of *Neisseria meningitidis* serogroup B revealed the presence of an approximately 35-kb region inserted within a putative gene coding for an ABC-type transporter. The region contains 46 open reading frames, 29 of which are colinear and homologous to the genes of *Escherichia coli* Mu phage. Two prophages with similar organizations were also found in serogroup A *meningococcus*, and one was found in *Haemophilus influenzae*. Early and late phage functions are well preserved in this family of Mu-like prophages. Several regions of atypical nucleotide content were identified. These likely represent genes acquired by horizontal transfer. Three of the acquired genes are shown to code for surface-associated antigens, and the encoded proteins are able to induce bactericidal antibodies.**

CT ATP-Binding Cassette Transporters: GE, genetics
Animals

*Antigens, Bacterial: GE, genetics
 Antigens, Surface: GE, genetics
 *Bacteriophage mu: GE, genetics
 Conserved Sequence
 Gene Transfer, Horizontal
 Haemophilus influenzae: GE, genetics
 Haemophilus influenzae: VI, virology
 Mice
 *Neisseria meningitidis: GE, genetics
 Neisseria meningitidis: IM, immunology
 *Neisseria meningitidis: VI, virology
 Open Reading Frames
 *Proviruses: GE, genetics
 Serotyping

CN 0 (ATP-Binding Cassette Transporters); 0 (Antigens, Bacterial); 0
 (Antigens, Surface)

L14 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:131532 HCAPLUS

DN 134:306851

TI A common conserved amino acid motif module shared by bacterial and
 intercellular adhesins: bacterial adherence mimicking cell-cell
 recognition?

AU Scarselli, Maria; Rappuoli, Rino; Scarlato, Vincenzo

CS Department of Molecular Biology, IRIS, Chiron S.p.A., Siena, 53100, Italy

SO Microbiology (Reading, United Kingdom) (2001), 147(2), 250-252

CODEN: MROBEO; ISSN: 1350-0872

PB Society for General Microbiology

DT Journal

LA English

AB Proteins of Neisseria meningitidis and Haemophilus influenzae with a
 sequence motif and a predicted fold common to N-CAMs were identified. The
 functional role of this similarity might enable the bacterial cells to
 promote adherence by mimicking the cell-cell recognition phenomena that
 occur at the neural level.

CC 6-3...(General Biochemistry)...

IT Cell adhesion

Haemophilus influenzae

Neisseria meningitidis

(common conserved amino acid motif module shared by bacterial and
 intercellular adhesins and relevance for bacterial adherence and
 cell-cell recognition)

IT Protein sequences

(homol.; common conserved amino acid motif module shared by bacterial
 and intercellular adhesins and relevance for bacterial adherence and
 cell-cell recognition)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 18 OF 27 MEDLINE on STN

AN 2000175756 MEDLINE

DN PubMed ID: 10710308

TI Identification of vaccine candidates against serogroup B
 meningococcus by whole-genome sequencing.

CM Comment on: Science. 2000 Mar 10;287(5459):1767-8. PubMed ID: 10755929

AU Pizza M; Scarlato V; Masignani V; Giuliani M M; Arico

B; Comanducci M; Jennings G T; Baldi L; Bartolini E; Capecci B;

Galeotti C L; Luzzi E; Manetti R; Marchetti E; Mora M;

Nuti S; Ratti G; Santini L; Savino S; Scarselli M; Storni E; Zuo

P; Broeker M; Hundt E; Knapp B; Blair E; Mason T; Tettelin H; Hood D W;

Jeffries A C; Saunders N J; Granoff D M; Venter J C; Moxon E R; Grandi G; Rappuoli R

CS IRIS, Chiron S.p.A., Via Fiorentina 1, 53100 Siena, Italy.

SO Science, (2000 Mar 10) 287 (5459) 1816-20.

Journal code: 0404511. ISSN: 0036-8075.

CY United States

DT Commentary

LA English

FS Priority Journals

EM 200004

ED Entered STN: 20000413

Last Updated on STN: 20000413

Entered Medline: 20000403

AB **Neisseria meningitidis** is a major cause of bacterial septicemia and meningitis. Sequence variation of surface-exposed proteins and cross-reactivity of the serogroup B capsular polysaccharide with human tissues have hampered efforts to develop a successful vaccine. To overcome these obstacles, the entire genome sequence of a virulent serogroup B strain (MC58) was used to identify vaccine candidates. A total of 350 candidate antigens were expressed in *Escherichia coli*, purified, and used to immunize mice. The sera allowed the identification of proteins that are surface exposed, that are conserved in sequence across a range of strains, and that induce a bactericidal antibody response, a property known to correlate with vaccine efficacy in humans.

CT Check Tags: Human

Amino Acid Sequence

Animals

Antibodies, Bacterial: BI, biosynthesis

Antibodies, Bacterial: BL, blood

Antigens, Bacterial: CH, chemistry

Antigens, Bacterial: GE, genetics

*Antigens, Bacterial: IM, immunology

Antigens, Surface: CH, chemistry

Antigens, Surface: GE, genetics

Antigens, Surface: IM, immunology

Bacterial Capsules

Bacterial Proteins: CH, chemistry

Bacterial Proteins: GE, genetics

*Bacterial Proteins: IM, immunology

*Bacterial Vaccines

Bacterial Vaccines: GE, genetics

Bacterial Vaccines: IM, immunology

Conserved Sequence

Escherichia coli: GE, genetics

*Genome, Bacterial

Immune Sera: IM, immunology

Mice

Neisseria meningitidis: CL, classification

*Neisseria meningitidis: GE, genetics

*Neisseria meningitidis: IM, immunology

Neisseria meningitidis: PY, pathogenicity

Open Reading Frames

Recombinant Fusion Proteins: CH, chemistry

Recombinant Fusion Proteins: IM, immunology

Recombinant Fusion Proteins: IP, isolation & purification

Recombination, Genetic

Sequence Analysis, DNA

Serotyping

Vaccination
Virulence

CN 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Antigens, Surface);
0 (Bacterial Capsules); 0 (Bacterial Proteins); 0 (Bacterial Vaccines); 0
(Immune Sera); 0 (Recombinant Fusion Proteins)

L14 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 15

AN 2000:790687 HCAPLUS

DN 133:359806

TI *Neisseria meningitidis* B genome sequence and open
reading frames and their diagnostic and therapeutic uses

IN Pizza, Mariagrazia; Hickey, Erin; Peterson, Jeremy; Tettelin, Herve;
Venter, J. Craig; Maignani, Vega; Galeotti, Cesira; Mora,
Marirosa; Ratti, Giulio; Scarselli, Maria; Scarlato,
Vincenzo; Rappuoli, Rino; Frazer, Claire M.; Grandi, Guido

PA Chiron Corporation; USA; The Institute for Genomic Research

SO PCT Int. Appl., 692 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000066791	A1	20001109	WO 2000-US5928	20000308
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	WO 2000022430	A2	20000420	WO 1999-US23573	19991008
	WO 2000022430	A3	20020606		
	WO 2000022430	C2	20020704		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2371032	AA	20001109	CA 2000-2371032	20000308
	EP 1185691	A1	20020313	EP 2000-910392	20000308
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 2000010361	A	20030610	BR 2000-10361	20000308
	JP 2003527079	T2	20030916	JP 2000-615413	20000308
	RU 2233328	C2	20040727	RU 2001-132325	20000308
PRAI	US 1999-132068P	P	19990430		
	WO 1999-US23573	W	19991008		
	GB 2000-4695	A	20000228		
	US 1998-103794P	P	19981009		
	WO 2000-US5928	W	20000308		

AB The invention provides methods of obtaining immunogenic proteins from genomic sequences including *Neisseria*, including the amino acid sequences and the corresponding nucleotide sequences, as well as the full-length

genomic sequence of *Neisseria meningitidis* B (strain 2996). A listing of 2158 open reading frames contained within the full-length sequence is also provided. Open reading frames (ORFs) 919, 279, 576-1, 519-1, 121-1, 128-1, 206, 287, and 406 are cloned and expressed in *Escherichia coli*. The proteins so obtained are useful antigens for vaccines, immunogenic compns., and/or diagnostics.

- IC ICM C12Q001-68
ICS C12N015-11; C07K014-22
- CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 1, 6, 9, 10, 15
- ST *Neisseria meningitidis* genome proteome sequence; open
reading frame sequence *Neisseria meningitidis*
- IT Antibacterial agents
Computer application
DNA sequences
Genome
Molecular cloning
Neisseria meningitidis
Nucleic acid amplification (method)
Nucleic acid hybridization
PCR (polymerase chain reaction)
Protein sequences
Vaccines
(*Neisseria meningitidis* B genome sequence and open
reading frames and their diagnostic and therapeutic uses)
- IT Antibodies
Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
study); BIOL (Biological study); USES (Uses)
(*Neisseria meningitidis* B genome sequence and open
reading frames and their diagnostic and therapeutic uses)
- IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 121-1; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)
- IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 121; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)
- IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 128-1; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)
- IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 128; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)
- IT Proteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 206; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 279; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 287; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 406; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 519-1; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 519; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 576-1; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 576; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 726; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 907-2; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)

(ORF 919-2; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 919; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(ORF 953; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Diagnosis**
... (agents; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Antibodies**
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
study); BIOL (Biological study); USES (Uses)
(monoclonal; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Gene**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(open reading frame; *Neisseria meningitidis* B genome
sequence and open reading frames and their diagnostic and
therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(orf1-1; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(orf46-2; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Proteins, general, biological studies**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(proteome; *Neisseria meningitidis* B genome sequence
and open reading frames and their diagnostic and therapeutic uses)

IT **Escherichia coli**
(recombinant expression host; *Neisseria meningitidis* B genome
sequence and open reading frames and their diagnostic and
therapeutic uses)

IT 224958-37-6 225229-51-6 260025-56-7 260026-93-5 260033-51-0
260034-20-6 260034-65-9 260036-70-2 260037-48-7 260041-98-3
265293-47-8 265293-53-6 265293-58-1 265293-73-0 265293-84-3
265293-97-8 305871-77-6 305871-78-7
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
(Occurrence); USES (Uses)
(amino acid sequence; *Neisseria meningitidis* B
genome sequence and open reading frames and their diagnostic

and therapeutic uses)
 IT 224958-36-5 225229-50-5 259358-47-9 259358-64-0 259359-08-5
 265293-46-7 265293-52-5 265293-62-7 265293-65-0 265293-72-9
 265293-74-1 265293-79-6 265293-83-2 265293-92-3 265293-93-4
 265293-94-5 265293-96-7 265633-74-7 304837-32-9 307003-88-9, DNA
 (Neisseria meningitidis strain 2996)
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
 (Occurrence); USES (Uses)

(nucleotide sequence; Neisseria meningitidis B
 genome sequence and open reading frames and their diagnostic
 and therapeutic uses)

IT 224958-40-1 259358-40-2 259358-58-2 259359-01-8 259847-94-4
 259847-99-9 259848-04-9 265293-48-9 265293-50-3 265293-54-7
 265293-59-2 265293-61-6 265293-63-8 265293-68-3 265293-70-7
 265293-76-3 265293-80-9 265293-82-1 265293-85-4 265293-87-6
 265293-91-2 305873-76-1

RL: PRP (Properties)

(unclaimed nucleotide sequence; neisseria
 meningitidis B genome sequence and open reading
 frames and their diagnostic and therapeutic uses)

IT 224958-39-8 224958-41-2 260036-46-2 262989-73-1 262991-23-1
 262991-39-9 262998-73-2 263001-61-2 265293-49-0 265293-55-8
 265293-56-9 265293-60-5 265293-64-9 265293-66-1 265293-71-8
 265293-77-4 265293-81-0 265293-86-5 265293-89-8 305873-24-9
 305873-25-0

RL: PRP (Properties)

(unclaimed protein sequence; neisseria
 meningitidis B genome sequence and open reading
 frames and their diagnostic and therapeutic uses)

IT 265120-51-2 265294-08-4 265294-10-8 265294-11-9 265294-12-0
 265294-14-2 265294-16-4 265294-18-6 265294-20-0 265294-22-2
 265294-24-4 290341-18-3, 29: PN: WO0050075 PAGE: 22 unclaimed DNA
 305873-26-1 305873-27-2 305873-66-9 305873-67-0 305873-68-1
 305873-69-2 305873-70-5 305873-71-6 305873-72-7 305873-73-8
 305873-74-9 305873-75-0

RL: PRP (Properties)

(unclaimed sequence; neisseria meningitidis B
 genome sequence and open reading frames and their diagnostic
 and therapeutic uses)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 16

AN 2000:260706 HCAPLUS

DN 132:304301

TI Neisseria meningitidis B genomic sequences and their
 diagnostic and therapeutic uses

IN Frazer, Claire M.; Hickey, Erin; Peterson, Jeremy; Tettelin, Herve;
 Venter, J. Craig; Masignani, Vega; Galeotti, Cesira; Mora,
 Marirosa; Ratti, Giulio; Scarselli, Maria; Scarlato,
 Vincenzo; Rappuoli, Rino; Pizza, Mariagratia

PA Chiron Corporation, USA

SO PCT Int. Appl., 1760 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI	WO 2000022430	A2	20000420	WO 1999-US23573	19991008
	WO 2000022430	A3	20020606		
	WO 2000022430	C2	20020704		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	NZ 527182	A	20040625	NZ 1999-527182	19990430
	CA 2346713	AA	20000420	CA 1999-2346713	19991008
	EP 1144998	A2	20011017	EP 1999-970470	19991008
	EP 1144998	A3	20020807		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9914374	A	20020917	BR 1999-14374	19991008
	RU 2223492	C2	20040210	RU 2001-112411	19991008
	JP 2004511201	T2	20040415	JP 2000-576277	19991008
	NZ 511540	A	20040528	NZ 1999-511540	19991008
	CA 2371032	AA	20001109	CA 2000-2371032	20000308
	WO 2000066791	A1	20001109	WO 2000-US5928	20000308
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1185691	A1	20020313	EP 2000-910392	20000308
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 2000010361	A	20030610	BR 2000-10361	20000308
	JP 2003527079	T2	20030916	JP 2000-615413	20000308
	RU 2233328	C2	20040727	RU 2001-132325	20000308
PRAI	US 1998-103794P	P	19981009		
	US 1999-132068P	P	19990430		
	US 1998-83758P	P	19980501		
	US 1998-94869P	P	19980731		
	US 1998-98994P	P	19980902		
	US 1998-99062P	P	19980902		
	US 1998-103749P	P	19981009		
	US 1998-103796P	P	19981009		
	US 1999-121528P	P	19990225		
	WO 1999-US23573	W	19991008		
	GB 2000-4695	A	20000228		
	WO 2000-US5928	W	20000308		
AB	The invention provides methods of obtaining immunogenic proteins from genomic sequences including Neisseria, including the amino acid sequences and the corresponding nucleotide sequences, as well as the complete genomic sequence and 931 contig sequences of Neisseria meningitidis serotype B. Open reading frames and predicted protein sequences are also provided and compared for N. meningitidis serotype B, N. meningitidis A, and N. gonorrhoeae. The proteins so obtained are useful antigens for vaccines, immunogenic compns., and/or diagnostics.				
IC	ICM G01N033-48				

CC 3-3 (Biochemical Genetics)
 Section cross-reference(s): 1, 6, 10

ST genome sequence *Neisseria meningitidis*; open reading
 frame sequence *Neisseria meningitidis*; protein
 sequence *Neisseria meningitidis*; antigen vaccine
Neisseria genome sequence

IT Computer application
 DNA sequences
 Databases
 Drugs
 Genome
 Molecular cloning
Neisseria gonorrhoeae
Neisseria meningitidis
 Protein sequences
 (*Neisseria meningitidis* B genomic sequences and
 their diagnostic and therapeutic uses)

IT Antibodies
 Primers (nucleic acid)
 Probes (nucleic acid)
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
 study); BIOL (Biological study); USES (Uses)
 (*Neisseria meningitidis* B genomic sequences and
 their diagnostic and therapeutic uses)

IT Proteins, general, biological studies
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
 (Occurrence); USES (Uses)
 (*Neisseria meningitidis* B genomic sequences and
 their diagnostic and therapeutic uses)

IT Diagnosis
 (agents; *Neisseria meningitidis* B genomic sequences
 and their diagnostic and therapeutic uses)

IT Antibodies
 RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical
 study); BIOL (Biological study); USES (Uses)
 (monoclonal; *Neisseria meningitidis* B genomic
 sequences and their diagnostic and therapeutic uses)

IT Gene, microbial
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
 (Occurrence); USES (Uses)
 (open reading frame; *Neisseria meningitidis* B genomic
 sequences and their diagnostic and therapeutic uses)

IT 224958-39-8 224958-41-2 260025-56-7 260026-93-5 260033-51-0
 260034-20-6 260034-65-9 260036-46-2 260036-70-2 260037-48-7
 262989-73-1 262991-23-1 262991-39-9 262998-73-2 263001-61-2
 265293-47-8 265293-49-0 265293-51-4 265293-53-6 265293-55-8
 265293-56-9 265293-58-1 265293-60-5 265293-64-9 265293-66-1
 265293-67-2 265293-69-4 265293-71-8 265293-73-0 265293-75-2
 265293-77-4 265293-81-0 265293-84-3 265293-86-5 265293-88-7
 265293-89-8 265293-90-1 265293-95-6 265293-97-8
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
 (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU
 (Occurrence); USES (Uses)
 (amino acid sequence; *Neisseria meningitidis* B
 genomic sequences and their diagnostic and therapeutic uses)

IT 224958-36-5 224958-40-1 225229-50-5 259358-40-2 259358-47-9
 259358-58-2 259358-64-0 259359-01-8 259359-08-5 259847-94-4
 259847-99-9 259848-04-9 264897-64-5 264897-65-6 264897-66-7

264897-67-8	264897-68-9	264897-69-0	264897-70-3	264897-71-4
264897-72-5	264897-73-6	264897-74-7	264897-75-8	264897-76-9
264897-77-0	264897-78-1	264897-79-2	264897-80-5	264897-81-6
264897-82-7	264897-83-8	264897-84-9	264897-85-0	264897-86-1
264897-87-2	264897-88-3	264897-89-4	264897-90-7	264897-91-8
264897-92-9	264897-93-0	264897-94-1	264897-95-2	264897-96-3
264897-97-4	264897-98-5	264897-99-6	264898-00-2	264898-01-3
264898-02-4	264898-03-5	264898-04-6	264898-05-7	264898-06-8
264898-07-9	264898-08-0	264898-09-1	264898-10-4	264898-11-5
264898-12-6	264898-13-7	264898-14-8	264898-15-9	264898-16-0
264898-17-1	264898-18-2	264898-19-3	264898-20-6	264898-21-7
264898-22-8	264898-23-9	264898-24-0	264898-25-1	264898-26-2
264898-27-3	264898-28-4	264898-29-5	264898-30-8	264898-31-9
264898-32-0	264898-33-1	264898-34-2	264898-35-3	264898-36-4
264898-37-5	264898-38-6	264898-39-7	264898-40-0	264898-41-1
264898-42-2	264898-43-3	264898-44-4	264898-45-5	264898-46-6
264898-47-7	264898-48-8	264898-49-9	264898-50-2	264898-51-3
264898-52-4	264898-53-5	264898-54-6	264898-55-7	264898-56-8
264898-57-9	264898-58-0	264898-59-1	264898-60-4	264898-61-5
264898-62-6	264898-63-7	264898-64-8	264898-65-9	264898-66-0
264898-67-1	264898-68-2	264898-69-3	264898-70-6	264898-71-7
264898-72-8	264898-73-9	264898-74-0	264898-75-1	264898-76-2
264898-77-3	264898-78-4	264898-79-5	264898-80-8	264898-81-9
264898-82-0	264898-83-1	264898-84-2	264898-85-3	264898-86-4
264898-87-5	264898-88-6	264898-89-7	264898-90-0	264898-91-1
264898-92-2	264898-93-3	264898-94-4	264898-95-5	264898-96-6
264898-97-7	264898-98-8	264898-99-9	264899-00-5	264899-01-6
264899-02-7	264899-03-8	264899-04-9	264899-05-0	264899-06-1
264899-07-2	265088-52-6	265088-53-7	265088-54-8	265088-55-9
265088-56-0	265088-57-1	265088-58-2	265088-59-3	265088-60-6
265088-61-7	265088-62-8	265088-63-9	265088-64-0	265088-65-1
265088-66-2	265088-67-3	265088-68-4	265088-69-5	265088-70-8
265088-71-9	265088-72-0	265088-73-1	265088-74-2	265088-75-3
265088-76-4	265088-77-5	265088-78-6	265088-79-7	265088-80-0
265088-81-1	265088-82-2	265088-83-3	265088-84-4	265088-85-5
265088-86-6	265088-87-7	265088-88-8	265088-89-9	265088-90-2
265088-91-3	265088-92-4	265088-93-5	265088-94-6	265088-95-7
265088-96-8	265088-97-9	265088-98-0	265088-99-1	265089-00-7
265089-01-8	265089-02-9	265089-03-0	265089-04-1	265089-05-2
265089-06-3	265089-07-4	265089-08-5	265089-09-6	265089-10-9
265089-11-0	265089-12-1	265089-13-2	265089-14-3	265089-15-4
265089-16-5	265089-17-6	265089-18-7	265089-19-8	265089-20-1
265089-21-2	265089-22-3	265089-23-4	265089-24-5	265089-25-6
265089-26-7	265089-27-8	265089-28-9	265089-29-0	

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; Neisseria meningitidis B genomic sequences and their diagnostic and therapeutic uses)

IT	265089-30-3	265089-31-4	265089-32-5	265089-33-6	265089-34-7
	265089-35-8	265089-36-9	265089-37-0	265089-38-1	265089-39-2
	265089-40-5	265089-41-6	265089-42-7	265089-43-8	265089-44-9
	265089-45-0	265089-46-1	265089-47-2	265089-48-3	265089-49-4
	265089-50-7	265089-51-8	265089-52-9	265089-53-0	265089-54-1
	265089-55-2	265089-56-3	265089-57-4	265089-58-5	265089-59-6
	265089-60-9	265089-61-0	265089-62-1	265089-63-2	265089-64-3
	265089-65-4	265089-66-5	265089-67-6	265089-68-7	265089-69-8
	265089-70-1	265089-71-2	265089-72-3	265089-73-4	265089-74-5
	265089-75-6	265089-76-7	265089-77-8	265089-78-9	265089-79-0
	265089-80-3	265089-81-4	265089-82-5	265089-83-6	265089-84-7

265089-85-8	265089-86-9	265089-87-0	265089-88-1	265089-89-2
265089-90-5	265089-91-6	265089-92-7	265089-93-8	265089-94-9
265089-95-0	265089-96-1	265089-97-2	265089-98-3	265089-99-4
265090-00-4	265090-01-5	265090-02-6	265090-03-7	265090-04-8
265287-62-5	265287-63-6	265287-64-7	265287-65-8	265287-66-9
265287-67-0	265287-68-1	265287-69-2	265287-70-5	265287-71-6
265287-72-7	265287-73-8	265287-74-9	265287-75-0	265287-76-1
265287-77-2	265287-78-3	265287-79-4	265287-80-7	265287-81-8
265287-82-9	265287-83-0	265287-84-1	265287-85-2	265287-86-3
265287-87-4	265287-88-5	265287-89-6	265287-90-9	265287-91-0
265287-92-1	265287-93-2	265287-94-3	265287-95-4	265287-96-5
265287-97-6	265287-98-7	265287-99-8	265288-00-4	265288-01-5
265288-02-6	265288-03-7	265288-04-8	265288-05-9	265288-06-0
265288-07-1	265288-08-2	265288-09-3	265288-10-6	265288-11-7
265288-12-8	265288-13-9	265288-14-0	265288-15-1	265288-16-2
265288-17-3	265288-18-4	265288-19-5	265288-20-8	265288-21-9
265288-22-0	265288-23-1	265288-24-2	265288-25-3	265288-26-4
265288-27-5	265288-28-6	265288-29-7	265288-30-0	265288-31-1
265288-32-2	265288-33-3	265288-34-4	265288-35-5	265288-36-6
265288-37-7	265288-38-8	265288-39-9	265288-40-2	265288-41-3
265288-42-4	265288-43-5	265288-44-6	265288-45-7	265288-46-8
265288-47-9	265288-48-0	265288-49-1	265288-50-4	265288-51-5
265288-52-6	265288-53-7	265288-54-8	265288-55-9	265288-56-0
265288-57-1	265288-58-2	265288-59-3	265288-60-6	265288-61-7
265288-62-8	265288-63-9	265288-64-0	265288-65-1	265288-66-2
265288-67-3	265288-68-4	265288-69-5	265288-70-8	265288-71-9
265288-72-0	265288-73-1	265288-74-2	265288-75-3	265288-76-4
265288-77-5	265288-78-6	265288-79-7	265288-80-0	265288-81-1
265288-82-2	265288-83-3	265288-84-4	265288-85-5	265288-86-6
265288-87-7	265288-88-8	265288-89-9	265288-90-2	265288-91-3
265288-92-4	265288-93-5	265288-94-6	265288-95-7	265288-96-8
265288-97-9	265288-98-0	265288-99-1	265289-00-7	265289-01-8
265289-02-9	265289-03-0	265289-04-1	265289-05-2	265289-06-3
265289-07-4	265289-08-5	265289-09-6	265289-10-9	265289-11-0
265289-12-1	265289-13-2	265289-14-3	265289-15-4	265289-16-5
265289-17-6	265289-18-7	265289-19-8	265289-20-1	

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; *Neisseria meningitidis* B genomic sequences and their diagnostic and therapeutic uses)

IT	265289-21-2	265289-22-3	265289-23-4	265289-24-5	265289-25-6
	265289-26-7	265289-27-8	265289-28-9	265289-29-0	265289-30-3
	265289-31-4	265289-32-5	265289-33-6	265289-34-7	265289-35-8
	265289-36-9	265289-37-0	265289-38-1	265289-39-2	265289-40-5
	265289-41-6	265289-42-7	265289-43-8	265289-44-9	265289-45-0
	265289-46-1	265289-47-2	265289-48-3	265289-49-4	265289-50-7
	265289-51-8	265289-52-9	265289-53-0	265289-54-1	265289-55-2
	265289-56-3	265289-57-4	265289-58-5	265289-59-6	265289-60-9
	265289-61-0	265289-62-1	265289-63-2	265289-64-3	265289-65-4
	265289-66-5	265289-67-6	265289-68-7	265289-69-8	265289-70-1
	265289-71-2	265289-72-3	265289-73-4	265289-74-5	265289-75-6
	265289-76-7	265289-77-8	265289-78-9	265289-79-0	265289-80-3
	265289-81-4	265289-82-5	265289-83-6	265289-84-7	265289-85-8
	265289-86-9	265289-87-0	265289-88-1	265289-89-2	265289-90-5
	265289-91-6	265289-92-7	265289-93-8	265289-94-9	265289-95-0
	265289-96-1	265289-97-2	265289-98-3	265289-99-4	265290-00-4
	265290-01-5	265290-02-6	265290-03-7	265290-04-8	265290-05-9
	265290-06-0	265290-07-1	265290-08-2	265290-09-3	265290-10-6
	265290-11-7	265290-12-8	265290-13-9	265290-14-0	265290-15-1

265290-16-2	265290-17-3	265290-18-4	265290-19-5	265290-20-8
265290-21-9	265290-22-0	265290-23-1	265290-24-2	265290-25-3
265290-26-4	265290-27-5	265290-28-6	265290-29-7	265290-30-0
265290-31-1	265290-32-2	265290-33-3	265290-34-4	265290-35-5
265290-36-6	265290-37-7	265290-38-8	265290-39-9	265290-40-2
265290-41-3	265290-42-4	265290-43-5	265290-44-6	265290-45-7
265290-46-8	265290-47-9	265290-48-0	265290-49-1	265290-50-4
265290-51-5	265290-52-6	265290-53-7	265290-54-8	265290-55-9
265290-56-0	265290-57-1	265290-58-2	265290-59-3	265290-60-6
265290-61-7	265290-62-8	265290-63-9	265290-64-0	265290-65-1
265290-66-2	265290-67-3	265290-68-4	265290-69-5	265290-70-8
265290-71-9	265290-72-0	265290-73-1	265290-74-2	265290-75-3
265290-76-4	265290-77-5	265290-78-6	265290-79-7	265290-80-0
265290-81-1	265290-82-2	265290-83-3	265290-84-4	265290-85-5
265290-86-6	265290-87-7	265290-88-8	265290-89-9	265290-90-2
265290-91-3	265290-92-4	265290-93-5	265290-94-6	265290-95-7
265290-96-8	265290-97-9	265290-98-0	265290-99-1	265291-00-7
265291-01-8	265291-02-9	265291-03-0	265291-04-1	265291-05-2
265291-06-3	265291-07-4	265291-08-5	265291-09-6	265291-10-9
265291-11-0	265291-12-1	265291-13-2	265291-14-3	265291-15-4
265291-16-5	265291-17-6	265291-18-7	265291-19-8	265291-20-1
265291-21-2	265291-22-3	265291-23-4	265291-24-5	265291-25-6
265291-26-7	265291-27-8	265291-28-9	265291-29-0	265291-30-3
265291-31-4	265291-32-5	265291-33-6	265291-34-7	265291-35-8
265291-36-9	265291-37-0	265291-38-1	265291-39-2	265291-40-5
265291-41-6	265291-42-7	265291-43-8	265291-44-9	265291-45-0
265291-46-1	265291-47-2	265291-48-3	265291-49-4	265291-50-7
265291-51-8	265291-52-9	265291-53-0	265291-54-1	

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; Neisseria meningitidis B genomic sequences and their diagnostic and therapeutic uses)

IT	265291-55-2	265291-56-3	265291-57-4	265291-58-5	265291-59-6
	265291-60-9	265291-61-0	265291-62-1	265291-63-2	265291-64-3
	265291-65-4	265291-66-5	265291-67-6	265291-68-7	265291-69-8
	265291-70-1	265291-71-2	265291-72-3	265291-73-4	265291-74-5
	265291-75-6	265291-76-7	265291-77-8	265291-78-9	265291-79-0
	265291-80-3	265291-81-4	265291-82-5	265291-83-6	265291-84-7
	265291-85-8	265291-86-9	265291-87-0	265291-88-1	265291-89-2
	265291-90-5	265291-91-6	265291-92-7	265291-93-8	265291-94-9
	265291-95-0	265291-96-1	265291-97-2	265291-98-3	265291-99-4
	265292-00-0	265292-01-1	265292-02-2	265292-03-3	265292-04-4
	265292-05-5	265292-06-6	265292-07-7	265292-08-8	265292-09-9
	265292-10-2	265292-11-3	265292-12-4	265292-13-5	265292-14-6
	265292-15-7	265292-16-8	265292-17-9	265292-18-0	265292-19-1
	265292-20-4	265292-21-5	265292-22-6	265292-23-7	265292-24-8
	265292-25-9	265292-26-0	265292-27-1	265292-28-2	265292-29-3
	265292-30-6	265292-31-7	265292-32-8	265292-33-9	265292-34-0
	265292-35-1	265292-36-2	265292-37-3	265292-38-4	265292-39-5
	265292-40-8	265292-41-9	265292-42-0	265292-43-1	265292-44-2
	265292-45-3	265292-46-4	265292-47-5	265292-48-6	265292-49-7
	265292-50-0	265292-51-1	265292-52-2	265292-53-3	265292-54-4
	265292-55-5	265292-56-6	265292-57-7	265292-58-8	265292-59-9
	265292-60-2	265292-61-3	265292-62-4	265292-63-5	265292-64-6
	265292-65-7	265292-66-8	265292-67-9	265292-68-0	265292-69-1
	265292-70-4	265292-71-5	265292-72-6	265292-73-7	265292-74-8
	265292-75-9	265292-76-0	265292-77-1	265292-78-2	265292-79-3
	265292-80-6	265292-81-7	265292-82-8	265292-83-9	265292-84-0
	265292-85-1	265292-86-2	265292-87-3	265292-88-4	265292-89-5

265292-90-8	265292-91-9	265292-92-0	265292-93-1	265292-94-2
265292-95-3	265292-96-4	265292-97-5	265292-98-6	265292-99-7
265293-00-3	265293-01-4	265293-02-5	265293-03-6	265293-04-7
265293-05-8	265293-06-9	265293-07-0	265293-08-1	265293-09-2
265293-10-5	265293-11-6	265293-12-7	265293-13-8	265293-14-9
265293-15-0	265293-16-1	265293-17-2	265293-18-3	265293-19-4
265293-20-7	265293-21-8	265293-22-9	265293-23-0	265293-24-1
265293-25-2	265293-26-3	265293-27-4	265293-28-5	265293-29-6
265293-30-9	265293-31-0	265293-32-1	265293-33-2	265293-34-3
265293-35-4	265293-36-5	265293-37-6	265293-38-7	265293-39-8
265293-40-1	265293-41-2	265293-42-3	265293-46-7	265293-48-9
265293-50-3	265293-52-5	265293-54-7	265293-57-0	265293-59-2
265293-61-6	265293-62-7	265293-63-8	265293-65-0	265293-68-3
265293-70-7	265293-72-9	265293-74-1	265293-76-3	265293-78-5
265293-79-6	265293-80-9	265293-82-1	265293-83-2	265293-85-4
265293-87-6	265293-91-2	265293-92-3	265293-93-4	265293-94-5
265293-96-7	265633-09-8	265633-10-1	265633-11-2	265633-12-3
265633-13-4	265633-14-5	265633-15-6	265633-16-7	265633-17-8
265633-18-9	265633-19-0	265633-20-3	265633-21-4	265633-22-5
265633-23-6	265633-24-7	265633-25-8	265633-26-9	

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; Neisseria meningitidis B genomic sequences and their diagnostic and therapeutic uses)

IT	265633-27-0	265633-28-1	265633-29-2	265633-30-5	265633-31-6
	265633-32-7	265633-33-8	265633-34-9	265633-35-0	265633-36-1
	265633-37-2	265633-38-3	265633-39-4	265633-40-7	265633-41-8
	265633-42-9	265633-43-0	265633-44-1	265633-45-2	265633-46-3
	265633-47-4	265633-48-5	265633-49-6	265633-50-9	265633-51-0
	265633-52-1	265633-53-2	265633-54-3	265633-55-4	265633-56-5
	265633-57-6	265633-58-7	265633-59-8	265633-60-1	265633-61-2
	265633-62-3	265633-63-4	265633-64-5	265633-65-6	265633-66-7
	265633-67-8	265633-68-9	265633-69-0	265633-70-3	265633-71-4
	265633-72-5	265633-73-6	265633-74-7	265668-60-8	265668-70-0
	265668-86-8	265668-88-0	265668-95-9	265669-16-7	265669-34-9
	265669-35-0	265669-39-4	265669-47-4	265669-61-2	265669-63-4
	265669-68-9	265669-81-6	265669-84-9	265670-23-3	265670-34-6, DNA

(Neisseria meningitidis strain B)
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(nucleotide sequence; Neisseria meningitidis B genomic sequences and their diagnostic and therapeutic uses)

IT	224770-25-6	224957-44-2	224957-55-5	224957-80-6	224958-34-3
	224958-72-9	224959-09-5	224959-18-6	253915-31-0	253915-32-1
	265670-30-2	265670-31-3			

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(unclaimed nucleotide sequence; Neisseria meningitidis B genomic sequences and their diagnostic and therapeutic uses)

IT	265294-02-8	265294-03-9	265294-04-0	265294-05-1	265294-06-2
	265294-07-3	265294-08-4	265294-09-5	265294-10-8	265294-11-9
	265294-12-0	265294-13-1	265294-14-2	265294-15-3	265294-16-4
	265294-17-5	265294-18-6	265294-19-7	265294-20-0	265294-21-1
	265294-22-2	265294-23-3	265294-24-4	265294-25-5	265633-78-1
	265633-79-2	265633-80-5	265633-81-6	265633-82-7	265633-83-8
	265633-84-9	265633-85-0			

RL: PRP (Properties)
(unclaimed nucleotide **sequence**; *Neisseria meningitidis* B genomic **sequences** and their diagnostic and therapeutic uses)

IT	224769-98-6	224959-31-3	224959-84-6	225096-67-3	225096-97-9
	225098-14-6	225100-32-3	225100-62-9	225101-16-6	225101-89-3
	225102-36-3	225102-54-5	225102-66-9	225102-92-1	225103-23-1
	225103-39-9	225103-62-8	225103-87-7	225104-11-0	225227-51-0
	225227-61-2	225227-74-7	225227-87-2	225228-14-8	225228-52-4
	225228-59-1	225228-70-6	225228-85-3	225229-12-9	225229-22-1
	225229-36-7	225229-46-9	225229-56-1	225229-66-3	225229-77-6
	225229-85-6	225229-92-5	225230-12-6	225230-22-8	225230-25-1
	225230-36-4	225230-48-8	225230-61-5	225230-67-1	225230-72-8
	225230-88-6	225231-08-3	225231-20-9	225231-30-1	225231-38-9
	225231-46-9	225231-54-9	225231-64-1	225231-80-1	225232-02-0
	225374-99-2	225375-07-5	225375-18-8	231617-82-6	231617-85-9
	231617-90-6	231617-94-0	231618-06-7	231618-13-6	231618-16-9
	231618-19-2	231618-21-6	231618-27-2	231947-91-4	231947-96-9
	231948-00-8	231948-04-2	231948-09-7	231948-29-1	253915-38-7
	253915-39-8	253915-45-6	253915-51-4	253915-55-8	265670-32-4
	265670-35-7	265670-38-0			

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(unclaimed **sequence**; *Neisseria meningitidis* B genomic **sequences** and their diagnostic and therapeutic uses)

IT	265120-51-2	265633-86-1	265633-87-2	265633-88-3	265633-89-4
	265633-90-7	265633-91-8	265633-92-9	265633-93-0	265633-94-1
	265633-95-2	265633-96-3	265633-97-4	265633-98-5	265633-99-6
	265634-00-2	265634-01-3	265634-02-4	265634-03-5	265634-04-6
	265634-05-7				

RL: PRP (Properties)
(unclaimed **sequence**; *Neisseria meningitidis* B genomic **sequences** and their diagnostic and therapeutic uses)

L14 ANSWER 21 OF 27 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2001-025134 [03] WPIDS

DNC C2001-007747

TI Antigenic determinant containing fragments of proteins disclosed in WO99/24578, used to treat, prevent and diagnose *Neisserial* bacteria infections.

DC B04 D16

IN GALEOTTI, C; MASIGNANI, V; MORA, M R;
SCARLATO, V; SCARSELLI, M

PA (CHIR) CHIRON SPA; (CHIR) CHIRON SRL

CYC 94

PI WO 2000071574 A2 20001130 (200103)* EN 365

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000049460 A 20001212 (200115)

EP 1194560 A2 20020410 (200232) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

BR 2000010720 A 20020611 (200248)

JP 2003500040 W 20030107 (200314) 406

MX 2001011833 A1 20020601 (200365)

ADT AU 775972 B2 20040819 (200474)
 WO 2000071574 A2 WO 2000-IB831 20000519; AU 2000049460 A AU 2000-49460
 20000519; EP 1194560 A2 EP 2000-931512 20000519, WO 2000-IB831 20000519;
 BR 2000010720 A BR 2000-10720 20000519, WO 2000-IB831 20000519; JP
 2003500040 W JP 2000-619829 20000519, WO 2000-IB831 20000519; MX
 2001011833 A1 WO 2000-IB831 20000519, MX 2001-11833 20011119; AU 775972 B2
 AU 2000-49460 20000519
 FDT AU 2000049460 A Based on WO 2000071574; EP 1194560 A2 Based on WO
 2000071574; BR 2000010720 A Based on WO 2000071574; JP 2003500040 W Based
 on WO 2000071574; MX 2001011833 A1 Based on WO 2000071574; AU 775972 B2
 Previous Publ. AU 2000049460, Based on WO 2000071574

PRAI GB 1999-11683 19990519

AB WO 200071574 A UPAB: 20040907

NOVELTY - A fragment containing an antigenic determinant of a
 protein disclosed in WO99/24578, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
 following:

- (1) a polypeptide having at least 50 % identity to the novel
 fragment;
- (2) a protein comprising the novel fragment provided that
 the protein is not one of the 446 protein
 sequences disclosed in WO99/24578;
- (3) an antibody which recognizes the novel fragment;
- (4) a protein comprising a peptide
 sequence recognized by an antibody of (3);
- (5) a nucleic acid encoding the novel fragment;
- (6) a vaccine, diagnostic reagent or immunogenic composition
 comprising the novel fragment or any of (1)-(5); and
- (7) treating a patient comprising administering the composition of
 (6).

ACTIVITY - Antibacterial.

No biological data is given.

MECHANISM OF ACTION - Vaccine; gene therapy.

USE - For treating or preventing infection due to Neisserial
 bacteria, for the production of a diagnostic reagent for detecting the
 presence of Neisserial bacteria or of antibodies against Neisserial
 bacteria, and for manufacturing a reagent which can raise antibodies
 against Neisserial bacteria (claimed). The bacteria are particularly N.
 meningitidis, especially strain A or B.

Dwg.0/0

L14 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17

AN 2000:181737 HCAPLUS

DN 133:38934

TI Identification of vaccine candidates against serogroup B
 meningococcus by whole-genome sequencing

AU Pizza, Mariagrazia; Scarlato, Vincenzo; Massignani, Vega
 ; Giuliani, Marzia Monica; Arico, Beatrice; Comanducci, Maurizio;
 Jennings, Gary T.; Baldi, Lucia; Bartolini, Erika; Capecchi, Barbara;
 Galeotti, Cesira L.; Luzzi, Enrico; Manetti, Roberto; Marchetti, Elisa;
 Moray, Marirosa; Nuti, Sandra; Ratti, Giulio; Santini, Laura; Savino,
 Silvana; Scarselli, Maria; Storni, Elisa; Zuo, Peijun; Broeker,
 Michael; Hundt, Erika; Knapp, Bernard; Blair, Eric; Mason, Tanya;
 Tettelin, Herve; Hood, Derek W.; Jeffries, Alex C.; Saunders, Nigel J.;
 Granoff, Dan M.; Venter, J. Craig; Moxon, E. Richard; Grandi, Guido;
 Rappuoli, Rino

CS IRIS, Chiron S.p.A, Siena, D-35006, Italy

SO Science (Washington, D. C.) (2000), 287(5459), 1816-1820
 CODEN: SCIEAS; ISSN: 0036-8075

PB American Association for the Advancement of Science

DT Journal
 LA English
 AB *Neisseria meningitidis* is a major cause of bacterial septicemia and meningitis. Sequence variation of surface-exposed proteins and cross-reactivity of the serogroup B capsular polysaccharide with human tissues have hampered efforts to develop a successful vaccine. To overcome these obstacles, the entire genome sequence of a virulent serogroup B strain (MC58) was used to identify vaccine candidates. A total of 350 candidate antigens were expressed in *Escherichia coli*, purified, and used to immunize mice. The sera allowed the identification of proteins that are surface exposed, that are conserved in sequence across a range of strains, and that induce a bactericidal antibody response, a property known to correlate with vaccine efficacy in humans.

CC 3-3 (Biochemical Genetics)
 Section cross-reference(s): 6, 10, 15

ST *meningococcus* genome sequencing antigen vaccine; outer membrane protein GNA porA sequence *Neisseria*

IT Proteins, specific or class
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (OMP (outer membrane protein); identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Proteins, specific or class
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (PorA; identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT *Escherichia coli*
 (as antigen expression host; identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Gene, microbial
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (gna, for genome-derived *Neisseria* antigens); identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT *Neisseria gonorrhoeae*
 Vaccines
 (identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Antigens
 RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Mouse
 (immunization of; identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Protein sequences
 (of outer membrane proteins of *Neisseria gonorrhoeae* and *Neisseria meningitidis*; identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT DNA sequences
 (of porA and GNA genes of *Neisseria gonorrhoeae* and *Neisseria meningitidis*; identification of vaccine candidates against serogroup B *meningococcus* by whole-genome sequencing)

IT Gene, microbial
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (porA; identification of vaccine candidates against serogroup B

meningococcus by whole-genome sequencing)

IT *Neisseria meningitidis*

(serogroup B; identification of vaccine candidates against serogroup B meningococcus by whole-genome sequencing)

IT 141560-35-2, Porin (*Neisseria meningitidis* strain 2996 gene porA

subunit precursor) 220797-34-2 220797-35-3 224959-64-2 224959-68-6

224959-71-1 227941-11-9 227941-26-6 227941-28-8 227941-38-0

260025-56-7 260034-22-8 260034-65-9 260036-42-8 260041-00-7

260041-98-3 262991-23-1 262991-39-9 262992-17-6 262997-71-7

262998-73-2 265293-56-9 265293-66-1 265293-89-8 274267-53-7

274267-54-8 274267-55-9 274267-56-0 274267-57-1 274267-58-2

274267-59-3 274267-60-6 274267-61-7 274267-62-8 274267-63-9

274267-64-0 274267-65-1 274267-66-2 274267-67-3 274267-68-4

274267-69-5 274267-70-8 274267-71-9 274267-72-0 274267-73-1

274267-75-3 274267-76-4 274267-77-5 274267-78-6 274267-79-7

274267-80-0 274267-81-1 274267-82-2 274267-83-3 274267-84-4

274267-85-5 274267-86-6 274267-87-7 274267-88-8 274267-89-9

274267-90-2 274267-91-3 274267-92-4 274267-93-5 274267-94-6

274267-95-7 274267-96-8 274267-97-9 274267-98-0 274267-99-1

274268-00-7 274268-01-8 274268-02-9 274268-03-0 274268-04-1

274268-05-2 274268-06-3 274268-07-4 274268-08-5 274268-09-6

274268-10-9 274268-11-0 274268-12-1 274268-13-2 274268-14-3

274268-15-4 274268-16-5 274268-17-6 274268-18-7 274268-19-8

274268-20-1 274268-21-2 274268-22-3 274268-23-4 274268-24-5

274268-25-6 274268-26-7 274268-27-8 274268-28-9 274268-29-0

274268-30-3 274268-31-4 274268-32-5 274268-33-6 274268-34-7

274268-35-8 274268-36-9 274268-37-0 274268-38-1 274268-39-2

274268-40-5 274268-41-6 274268-42-7 274268-43-8 274268-44-9

274268-45-0 274268-46-1 274268-47-2 274268-48-3 274268-49-4

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)

(amino acid sequence; identification of vaccine candidates against serogroup B meningococcus by whole-genome sequencing)

IT 141533-68-8, GenBank AF226328 224959-63-1, GenBank AF226491

224959-67-5, GenBank AF226502 224959-70-0, GenBank AF235153

227941-25-5, GenBank AF226381 227941-27-7, GenBank AF226383

231617-83-7, GenBank AF226367 259357-91-0, GenBank AF226325

259357-92-1, GenBank AF226326 259357-93-2, GenBank AF226327

259357-95-4, GenBank AF226329 259357-96-5, GenBank AF226330

259357-97-6, GenBank AF226331 259357-98-7, GenBank AF226332

259357-99-8, GenBank AF226333 259358-00-4, GenBank AF226334

259358-01-5, GenBank AF226335 259358-02-6, GenBank AF226336

259358-03-7, GenBank AF226338 259358-04-8, GenBank AF226339

259358-05-9, GenBank AF226340 259358-06-0, GenBank AF226341

259358-07-1, GenBank AF226342 259358-08-2, GenBank AF226343

259358-09-3, GenBank AF226344 259358-10-6, GenBank AF226345

259358-11-7, GenBank AF226346 259358-12-8, GenBank AF226347

259358-13-9, GenBank AF226348 259358-14-0, GenBank AF226349

259358-15-1, GenBank AF226350 259358-16-2, GenBank AF226351

259358-17-3, GenBank AF226352 259358-18-4, GenBank AF226353

259358-19-5, GenBank AF226354 259358-20-8, GenBank AF226355

259358-21-9, GenBank AF226356 259358-22-0, GenBank AF226357

259358-23-1, GenBank AF226358 259358-24-2, GenBank AF226359

259358-25-3, GenBank AF226360 259358-26-4, GenBank AF226361

259358-27-5, GenBank AF226362 259358-28-6, GenBank AF226364

259358-29-7, GenBank AF226366 259358-30-0, GenBank AF226369

259358-31-1, GenBank AF226371 259358-32-2, GenBank AF226372

259358-33-3, GenBank AF226377 259358-34-4, GenBank AF226378

259358-35-5, GenBank AF226379 259358-36-6, GenBank AF226380

259358-37-7, GenBank AF226382 259358-38-8, GenBank AF226385

259358-39-9, GenBank AF226387	259358-40-2, GenBank AF226388
259358-41-3, GenBank AF226389	259358-42-4, GenBank AF226390
259358-43-5, GenBank AF226392	259358-44-6, GenBank AF226393
259358-45-7, GenBank AF226395	259358-46-8, GenBank AF226397
259358-47-9, GenBank AF226398	259358-48-0, GenBank AF226402
259358-49-1, GenBank AF226403	259358-50-4, GenBank AF226404
259358-51-5, GenBank AF226409	259358-52-6, GenBank AF226410
259358-53-7, GenBank AF226412	259358-54-8, GenBank AF226413
259358-55-9, GenBank AF226414	259358-56-0, GenBank AF226416
259358-57-1, GenBank AF226418	259358-58-2, GenBank AF226419
259358-59-3, GenBank AF226420	259358-60-6, GenBank AF226421
259358-61-7, GenBank AF226423	259358-62-8, GenBank AF226426
259358-63-9, GenBank AF226428	259358-64-0, GenBank AF226429
259358-65-1, GenBank AF226430	259358-66-2, GenBank AF226431
259358-67-3, GenBank AF226433	259358-68-4, GenBank AF226435
259358-69-5, GenBank AF226438	259358-70-8, GenBank AF226440
259358-71-9, GenBank AF226443	259358-72-0, GenBank AF226444
259358-73-1, GenBank AF226447	259358-74-2, GenBank AF226449
259358-75-3, GenBank AF226450	259358-76-4, GenBank AF226451
259358-77-5, GenBank AF226454	259358-78-6, GenBank AF226456
259358-79-7, GenBank AF226459	259358-80-0, GenBank AF226464
259358-81-1, GenBank AF226467	259358-82-2, GenBank AF226469
259358-83-3, GenBank AF226471	259358-84-4, GenBank AF226472
259358-85-5, GenBank AF226478	259358-86-6, GenBank AF226479
259358-87-7, GenBank AF226480	259358-88-8, GenBank AF226481
259358-89-9, GenBank AF226482	259358-90-2, GenBank AF226483
259358-91-3, GenBank AF226487	259358-92-4, GenBank AF226489
259358-93-5, GenBank AF226490	259358-94-6, GenBank AF226494
259358-95-7, GenBank AF226495	259358-96-8, GenBank AF226496
259358-97-9, GenBank AF226501	259358-98-0, GenBank AF226503
259358-99-1, GenBank AF226507	259359-00-7, GenBank AF226511
259359-01-8, GenBank AF226512	259359-02-9, GenBank AF226513
259359-03-0, GenBank AF226514	259359-04-1, GenBank AF226517
259359-05-2, GenBank AF226519	259359-06-3, GenBank AF226520
259359-07-4, GenBank AF226521	259359-08-5, GenBank AF226522
259359-09-6, GenBank AF226523	259359-10-9, GenBank AF226524
259359-11-0, GenBank AF226526	259359-12-1, GenBank AF226527
259359-13-2, GenBank AF226528	259359-14-3, GenBank AF226533
259359-15-4, GenBank AF226534	259359-16-5, GenBank AF226535
259359-17-6, GenBank AF226538	259359-18-7, GenBank AF226542
259359-19-8, GenBank AF226543	259359-20-1, GenBank AF226544
259359-21-2, GenBank AF226550	259359-22-3, GenBank AF226552
259359-23-4, GenBank AF226553	259359-24-5, GenBank AF226555
259359-25-6, GenBank AF226557	259359-26-7, GenBank AF226558
259359-27-8, GenBank AF226565	259359-28-9, GenBank AF226570
259847-94-4, GenBank AF235146	259847-95-5, GenBank AF235148
259847-96-6, GenBank AF235149	259847-97-7, GenBank AF235151
259847-99-9, GenBank AF235154	259848-00-5, GenBank AF235157
259848-01-6, GenBank AF235158	259848-02-7, GenBank AF235143
259848-03-8, GenBank AF235144	259848-04-9, GenBank AF235145

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; identification of vaccine candidates against serogroup B meningococcus by whole-genome sequencing)

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 18

AN 2000:181732 HCAPLUS

DN 132:203916

TI Complete genome **sequence** of *Neisseria meningitidis*
serogroup B strain MC58

AU Tettelin, Herve; Saunders, Nigel J.; Heidelberg, John; Jeffries, Alex C.;
Nelson, Karen E.; Eisen, Jonathan A.; Ketchum, Karen A.; Hood, Derek W.;
Peden, John F.; Dodson, Robert J.; Nelson, William C.; Gwinn, Michelle L.;
DeBoy, Robert; Peterson, Jeremy D.; Hickey, Erin K.; Haft, Daniel H.;
Salzberg, Steven L.; White, Owen; Fleischmann, Robert D.; Dougherty, Brian
A.; Mason, Tanya; Ciecko, Anne; Parksey, Debbie S.; Blair, Eric; Cittone,
Henry; Clark, Emily B.; Cotton, Matthew D.; Utterback, Terry R.; Khouri,
Hoda; Qin, Haiying; Vamathevan, Jessica; Gill, John; **Scarlato,**
Vincenzo; Massignani, Vega; Pizza, Mariagrazia; Grandi,
Guido; Sun, Li; Smith, Hamilton O.; Fraser, Claire M.; Moxon, E. Richard;
Rappuoli, Rino; Venter, J. Craig

CS The Institute for Genomic Research (TIGR), Rockville, MD, 20850, USA

SO Science (Washington, D. C.) (2000), 287(5459), 1809-1815
CODEN: SCIEAS; ISSN: 0036-8075

PB American Association for the Advancement of Science

DT Journal

LA English

AB The 2,272,351-bp genome of *Neisseria meningitidis* strain MC58 (serogroup
B) ... a causative agent of meningitis and septicemia, contains 2158
predicted coding regions, 1158 (53.7%) of which were assigned a biol.
role. Three major islands of horizontal DNA transfer were identified; two
of these contain genes encoding proteins involved in pathogenicity, and
the third island contains coding sequences only for hypothetical proteins.
Insights into the commensal and virulence behavior of *N. meningitidis* can
be gleaned from the genome, in which sequences for structural proteins of
the pilus are clustered and several coding regions unique to serogroup B
capsular polysaccharide synthesis can be identified. Finally, *N.*
meningitidis contains more genes that undergo phase variation than any
pathogen studied to date, a mechanism that controls their expression and
contributes to the evasion of the host immune system.

CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 6, 10

ST *Neisseria meningitidis* genome **sequence**; DNA
sequence *Neisseria meningitidis*; protein
sequence *Neisseria meningitidis*

IT DNA sequences
Genome
Neisseria meningitidis
Protein sequences
(complete genome **sequence** of *Neisseria meningitidis*
serogroup B strain MC58)

IT Gene, microbial
Proteins, general, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP
(Properties); BIOL (Biological study); OCCU (Occurrence)
(complete genome **sequence** of *Neisseria meningitidis*
serogroup B strain MC58)

IT 104220-37-3, **Protein** (plasmid pIM13 16.6-kilodalton reduced)
122880-01-7, **Protein** PBP 2 (*Neisseria meningitidis*
strain C311) 139076-00-9, Lipoprotein (*Neisseria meningitidis*
clone pMF32.35 gene ctrA precursor **protein** moiety reduced)
139076-15-6, **Protein** (*Neisseria meningitidis* clone
pMF32.35 gene ctrB) 148025-05-2, **Protein** OMP 3 (*Neisseria*
meningitidis strain MC58 gene porB precursor) 148997-85-7
153131-18-1 155360-61-5 155360-62-6 158855-59-5 165886-78-2
172401-04-6 186325-08-6 187889-90-3 189399-34-6 189959-82-8
198653-59-7 202758-96-1 202758-98-3 214354-31-1 216385-69-2
222189-28-8 224770-06-3 224770-37-0 224957-47-5 224957-58-8

224957-90-8	224958-27-4	224958-63-8	224958-96-7	224959-04-0
224959-20-0	224959-45-9	224959-64-2	224959-78-8	224959-87-9
225096-49-1	225096-70-8	225097-00-7	225097-21-2	225097-58-5
225098-08-8	225098-31-7	225098-47-5	225099-08-1	225099-63-8
225100-82-3	225101-42-8	225102-48-7	225102-62-5	225102-75-0
225103-06-0	225103-97-9	225104-19-8	225104-45-0	225105-32-8
225228-55-7	225228-73-9	225228-93-3	225229-16-3	225229-27-6
225229-39-0	225229-51-6	225229-70-9	225229-87-8	225229-95-8
225230-06-8	225230-15-9	225230-28-4	225230-41-1	225230-64-8
225231-13-0	225231-23-2	225231-51-6	225231-57-2	225231-71-0
225231-83-4	225374-86-7	225375-10-0	225375-21-3	227941-38-0
231617-87-1	231617-91-7	231618-04-5	231618-15-8	231618-29-4
231948-06-4	231948-16-6	241475-11-6	250170-26-4	250171-30-3
250172-50-0	250174-10-8	250177-16-3	250194-95-7	257856-77-2
260025-32-9	260025-33-0	260025-34-1	260025-35-2	260025-36-3
260025-37-4	260025-38-5	260025-39-6	260025-40-9	260025-41-0
260025-42-1	260025-43-2	260025-44-3	260025-45-4	260025-46-5
260025-47-6	260025-48-7	260025-49-8	260025-50-1	260025-51-2
260025-52-3	260025-53-4	260025-54-5	260025-55-6	260025-56-7
260025-57-8	260025-58-9	260025-59-0	260025-60-3	260025-61-4
260025-62-5	260025-63-6	260025-64-7	260025-65-8	260025-66-9
260025-67-0	260025-68-1	260025-69-2	260025-70-5	260025-71-6
260025-72-7	260025-73-8	260025-74-9	260025-75-0	260025-76-1
260025-77-2	260025-78-3	260025-79-4	260025-80-7	260025-81-8
260025-82-9	260025-83-0	260025-84-1	260025-85-2	260025-86-3
260025-87-4	260025-88-5	260025-89-6	260025-90-9	260025-91-0
260025-92-1	260025-93-2	260025-94-3	260025-95-4	260025-96-5
260025-97-6	260025-98-7	260025-99-8	260026-00-4	260026-01-5
260026-02-6	260026-03-7	260026-04-8	260026-05-9	260026-06-0
260026-07-1	260026-08-2	260026-09-3	260026-10-6	260026-11-7
260026-12-8	260026-13-9	260026-14-0	260026-15-1	260026-16-2
260026-17-3	260026-18-4	260026-19-5	260026-20-8	260026-21-9
260026-22-0	260026-23-1	260026-24-2	260026-25-3	260026-26-4
260026-27-5	260026-28-6	260026-29-7	260026-30-0	260026-31-1
260026-32-2	260026-33-3	260026-34-4	260026-35-5	260026-36-6
260026-37-7	260026-38-8	260026-39-9	260026-40-2	260026-41-3
260026-42-4	260026-43-5	260026-44-6	260026-45-7	260026-46-8
260026-47-9	260026-48-0	260026-49-1	260026-50-4	260026-51-5
260026-52-6	260026-53-7	260026-54-8	260026-55-9	260026-56-0
260026-57-1	260026-58-2	260026-59-3	260026-60-6	260026-61-7
260026-62-8	260026-63-9	260026-64-0	260026-65-1	260026-66-2
260026-67-3	260026-68-4	260026-69-5	260026-70-8	260026-71-9
260026-72-0	260026-73-1			

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(amino acid sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

IT	260026-74-2	260026-75-3	260026-76-4	260026-77-5	260026-78-6
	260026-79-7	260026-80-0	260026-81-1	260026-82-2	260026-83-3
	260026-84-4	260026-85-5	260026-86-6	260026-87-7	260026-88-8
	260026-89-9	260026-90-2	260026-91-3	260026-92-4	260026-93-5
	260026-94-6	260026-95-7	260026-96-8	260026-97-9	260026-98-0
	260026-99-1	260027-00-7	260027-01-8	260027-02-9	260027-03-0
	260027-04-1	260027-05-2	260027-06-3	260027-07-4	260027-08-5
	260027-09-6	260027-10-9	260027-11-0	260027-12-1	260027-13-2
	260027-14-3	260027-15-4	260027-16-5	260027-17-6	260027-18-7
	260027-19-8	260027-20-1	260027-21-2	260027-22-3	260027-23-4
	260027-24-5	260027-25-6	260027-26-7	260027-27-8	260027-28-9
	260027-29-0	260027-30-3	260027-31-4	260027-32-5	260027-33-6
	260027-34-7	260027-35-8	260027-36-9	260027-37-0	260027-38-1

260027-39-2	260027-40-5	260027-41-6	260027-42-7	260027-43-8
260027-44-9	260027-45-0	260027-46-1	260027-47-2	260027-48-3
260027-49-4	260027-50-7	260027-51-8	260027-52-9	260027-53-0
260027-54-1	260027-55-2	260027-56-3	260027-57-4	260027-58-5
260027-59-6	260027-60-9	260027-61-0	260027-62-1	260027-63-2
260027-64-3	260027-65-4	260027-66-5	260027-67-6	260027-68-7
260027-69-8	260027-70-1	260027-71-2	260027-72-3	260027-73-4
260027-74-5	260027-75-6	260027-76-7	260027-77-8	260027-78-9
260027-79-0	260027-80-3	260027-81-4	260027-82-5	260027-83-6
260027-84-7	260027-85-8	260027-86-9	260027-87-0	260027-88-1
260027-89-2	260027-90-5	260027-91-6	260027-92-7	260027-93-8
260027-94-9	260027-95-0	260027-96-1	260027-97-2	260027-98-3
260027-99-4	260028-00-0	260028-01-1	260028-02-2	260028-03-3
260028-04-4	260028-05-5	260028-06-6	260028-07-7	260028-08-8
260028-09-9	260028-10-2	260028-11-3	260028-12-4	260028-13-5
260028-14-6	260028-15-7	260028-16-8	260028-17-9	260028-18-0
260028-19-1	260028-20-4	260028-21-5	260028-22-6	260028-23-7
260028-24-8	260028-25-9	260028-26-0	260028-27-1	260028-28-2
260028-29-3	260028-30-6	260028-31-7	260028-32-8	260028-33-9
260028-34-0	260028-35-1	260028-36-2	260028-37-3	260028-38-4
260028-39-5	260028-40-8	260028-41-9	260028-42-0	260028-43-1
260028-44-2	260028-45-3	260028-46-4	260028-47-5	260028-48-6
260028-49-7	260028-50-0	260028-51-1	260028-52-2	260028-53-3
260028-54-4	260028-55-5	260028-56-6	260028-57-7	260028-58-8
260028-59-9	260028-60-2	260028-61-3	260028-62-4	260028-63-5
260028-64-6	260028-65-7	260028-66-8	260028-67-9	260028-68-0
260028-69-1	260028-70-4	260028-71-5	260028-72-6	260028-73-7
260028-74-8	260028-75-9	260028-76-0	260028-77-1	260028-78-2
260028-79-3	260028-80-6	260028-81-7	260028-82-8	260028-83-9
260028-84-0	260028-85-1	260028-86-2	260028-87-3	260028-88-4
260028-89-5	260028-90-8	260028-91-9	260028-92-0	260028-93-1
260028-94-2	260028-95-3	260028-96-4	260028-97-5	260028-98-6
260028-99-7	260029-00-3	260029-01-4	260029-02-5	260029-03-6
260029-04-7	260029-05-8	260029-06-9	260029-07-0	260029-08-1
260029-09-2	260029-10-5	260029-11-6		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(amino acid sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

IT	260029-12-7	260029-13-8	260029-14-9	260029-15-0	260029-16-1
	260029-17-2	260029-18-3	260029-19-4	260029-20-7	260029-21-8
	260029-22-9	260029-23-0	260029-24-1	260029-25-2	260029-26-3
	260029-27-4	260029-28-5	260029-29-6	260029-30-9	260029-31-0
	260029-32-1	260029-33-2	260029-34-3	260029-35-4	260029-36-5
	260029-37-6	260029-38-7	260029-39-8	260029-40-1	260029-41-2
	260029-42-3	260029-43-4	260029-44-5	260029-45-6	260029-46-7
	260029-47-8	260029-48-9	260029-49-0	260029-50-3	260029-51-4
	260029-52-5	260029-53-6	260029-54-7	260029-55-8	260029-56-9
	260029-57-0	260029-58-1	260029-59-2	260029-60-5	260029-61-6
	260029-62-7	260029-63-8	260029-64-9	260029-65-0	260029-66-1
	260029-67-2	260029-68-3	260029-69-4	260029-70-7	260029-71-8
	260029-72-9	260029-73-0	260029-74-1	260029-75-2	260029-76-3
	260029-77-4	260029-78-5	260029-79-6	260029-80-9	260029-81-0
	260029-82-1	260029-83-2	260029-84-3	260029-85-4	260029-86-5
	260029-87-6	260029-88-7	260029-89-8	260029-90-1	260029-91-2
	260029-92-3	260029-93-4	260029-94-5	260029-95-6	260029-96-7
	260029-97-8	260029-98-9	260029-99-0	260030-00-0	260030-01-1
	260030-02-2	260030-03-3	260030-04-4	260030-05-5	260030-06-6
	260030-07-7	260030-08-8	260030-09-9	260030-10-2	260030-11-3
	260030-12-4	260030-13-5	260030-14-6	260030-15-7	260030-16-8

260030-17-9	260030-18-0	260030-19-1	260030-20-4	260030-21-5
260030-22-6	260030-23-7	260030-24-8	260030-25-9	260030-26-0
260030-27-1	260030-28-2	260030-29-3	260030-30-6	260030-31-7
260030-32-8	260030-33-9	260030-34-0	260030-35-1	260030-36-2
260030-37-3	260030-38-4	260030-39-5	260030-40-8	260030-41-9
260030-42-0	260030-43-1	260030-44-2	260030-45-3	260030-46-4
260030-47-5	260030-48-6	260030-49-7	260030-50-0	260030-51-1
260030-52-2	260030-53-3	260030-54-4	260030-55-5	260030-56-6
260030-57-7	260030-58-8	260030-59-9	260030-60-2	260030-61-3
260030-62-4	260030-63-5	260030-64-6	260030-65-7	260030-66-8
260030-67-9	260030-68-0	260030-69-1	260030-70-4	260030-71-5
260030-72-6	260030-73-7	260030-74-8	260030-75-9	260030-76-0
260030-77-1	260030-78-2	260030-79-3	260030-80-6	260030-81-7
260030-82-8	260030-83-9	260030-84-0	260030-85-1	260030-86-2
260030-87-3	260030-88-4	260030-89-5	260030-90-8	260030-91-9
260030-92-0	260030-93-1	260030-94-2	260030-95-3	260030-96-4
260030-97-5	260030-98-6	260030-99-7	260031-00-3	260031-01-4
260031-02-5	260031-03-6	260031-04-7	260031-05-8	260031-06-9
260031-07-0	260031-08-1	260031-09-2	260031-10-5	260031-11-6
260031-12-7	260031-13-8	260031-14-9	260031-15-0	260031-16-1
260031-17-2	260031-18-3	260031-19-4	260031-20-7	260031-21-8
260031-22-9	260031-23-0	260031-24-1	260031-25-2	260031-26-3
260031-27-4	260031-28-5	260031-29-6	260031-30-9	260031-31-0
260031-32-1	260031-33-2	260031-34-3	260031-35-4	260031-36-5
260031-37-6	260031-38-7	260031-39-8	260031-40-1	260031-41-2
260031-42-3	260031-43-4	260031-44-5	260031-45-6	260031-46-7
260031-47-8	260031-48-9	260031-49-0		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(amino acid sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

IT	260031-50-3	260031-51-4	260031-52-5	260031-53-6	260031-54-7
	260031-55-8	260031-56-9	260031-57-0	260031-58-1	260031-59-2
	260031-60-5	260031-61-6	260031-62-7	260031-63-8	260031-64-9
	260031-65-0	260031-66-1	260031-67-2	260031-68-3	260031-69-4
	260031-70-7	260031-71-8	260031-72-9	260031-73-0	260031-74-1
	260031-75-2	260031-76-3	260031-77-4	260031-78-5	260031-79-6
	260031-80-9	260031-81-0	260031-82-1	260031-83-2	260031-84-3
	260031-85-4	260031-86-5	260031-87-6	260031-88-7	260031-89-8
	260031-90-1	260031-91-2	260031-92-3	260031-93-4	260031-94-5
	260031-95-6	260031-96-7	260031-97-8	260031-98-9	260031-99-0
	260032-00-6	260032-01-7	260032-02-8	260032-03-9	260032-04-0
	260032-05-1	260032-06-2	260032-07-3	260032-08-4	260032-09-5
	260032-10-8	260032-11-9	260032-12-0	260032-13-1	260032-14-2
	260032-15-3	260032-16-4	260032-17-5	260032-18-6	260032-19-7
	260032-20-0	260032-21-1	260032-22-2	260032-23-3	260032-24-4
	260032-25-5	260032-26-6	260032-27-7	260032-28-8	260032-29-9
	260032-30-2	260032-31-3	260032-32-4	260032-33-5	260032-34-6
	260032-35-7	260032-36-8	260032-37-9	260032-38-0	260032-39-1
	260032-40-4	260032-41-5	260032-42-6	260032-43-7	260032-44-8
	260032-45-9	260032-46-0	260032-47-1	260032-48-2	260032-49-3
	260032-50-6	260032-51-7	260032-52-8	260032-53-9	260032-54-0
	260032-55-1	260032-56-2	260032-57-3	260032-58-4	260032-59-5
	260032-60-8	260032-61-9	260032-62-0	260032-63-1	260032-64-2
	260032-65-3	260032-66-4	260032-67-5	260032-68-6	260032-69-7
	260032-70-0	260032-71-1	260032-72-2	260032-73-3	260032-74-4
	260032-75-5	260032-76-6	260032-77-7	260032-78-8	260032-79-9
	260032-80-2	260032-81-3	260032-82-4	260032-83-5	260032-84-6
	260032-85-7	260032-86-8	260032-87-9	260032-88-0	260032-89-1
	260032-90-4	260032-91-5	260032-92-6	260032-93-7	260032-94-8

260032-95-9	260032-96-0	260032-97-1	260032-98-2	260032-99-3
260033-00-9	260033-01-0	260033-02-1	260033-03-2	260033-04-3
260033-05-4	260033-06-5	260033-07-6	260033-08-7	260033-09-8
260033-10-1	260033-11-2	260033-12-3	260033-13-4	260033-14-5
260033-15-6	260033-16-7	260033-17-8	260033-18-9	260033-19-0
260033-20-3	260033-21-4	260033-22-5	260033-23-6	260033-24-7
260033-25-8	260033-26-9	260033-27-0	260033-28-1	260033-29-2
260033-30-5	260033-31-6	260033-32-7	260033-33-8	260033-34-9
260033-35-0	260033-36-1	260033-37-2	260033-38-3	260033-39-4
260033-40-7	260033-41-8	260033-42-9	260033-43-0	260033-44-1
260033-45-2	260033-46-3	260033-47-4	260033-48-5	260033-49-6
260033-50-9	260033-51-0	260033-52-1	260033-53-2	260033-54-3
260033-55-4	260033-56-5	260033-57-6	260033-58-7	260033-59-8
260033-60-1	260033-61-2	260033-62-3	260033-63-4	260033-64-5
260033-65-6	260033-66-7	260033-67-8	260033-68-9	260033-69-0
260033-70-3	260033-71-4	260033-72-5	260033-73-6	260033-74-7
260033-75-8	260033-76-9	260033-77-0	260033-78-1	260033-79-2
260033-80-5	260033-81-6	260033-82-7	260033-83-8	260033-84-9
260033-85-0	260033-86-1	260033-87-2		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; complete genome sequence of

Neisseria meningitidis serogroup B strain MC58)

IT	260033-88-3	260033-89-4	260033-90-7	260033-91-8	260033-92-9
	260033-93-0	260033-94-1	260033-95-2	260033-96-3	260033-97-4
	260033-98-5	260033-99-6	260034-00-2	260034-01-3	260034-02-4
	260034-03-5	260034-04-6	260034-05-7	260034-06-8	260034-07-9
	260034-08-0	260034-09-1	260034-10-4	260034-11-5	260034-12-6
	260034-13-7	260034-14-8	260034-15-9	260034-16-0	260034-17-1
	260034-18-2	260034-19-3	260034-20-6	260034-21-7	260034-22-8
	260034-23-9	260034-24-0	260034-25-1	260034-26-2	260034-27-3
	260034-28-4	260034-29-5	260034-30-8	260034-31-9	260034-32-0
	260034-33-1	260034-34-2	260034-35-3	260034-36-4	260034-37-5
	260034-38-6	260034-39-7	260034-40-0	260034-41-1	260034-42-2
	260034-43-3	260034-44-4	260034-45-5	260034-46-6	260034-47-7
	260034-48-8	260034-49-9	260034-50-2	260034-51-3	260034-52-4
	260034-53-5	260034-54-6	260034-55-7	260034-56-8	260034-57-9
	260034-58-0	260034-59-1	260034-60-4	260034-61-5	260034-62-6
	260034-63-7	260034-64-8	260034-65-9	260034-66-0	260034-67-1
	260034-68-2	260034-69-3	260034-70-6	260034-71-7	260034-72-8
	260034-73-9	260034-74-0	260034-75-1	260034-76-2	260034-77-3
	260034-78-4	260034-79-5	260034-80-8	260034-81-9	260034-82-0
	260034-83-1	260034-84-2	260034-85-3	260034-86-4	260034-87-5
	260034-88-6	260034-89-7	260034-90-0	260034-91-1	260034-92-2
	260034-93-3	260034-94-4	260034-95-5	260034-96-6	260034-97-7
	260034-98-8	260034-99-9	260035-00-5	260035-01-6	260035-02-7
	260035-03-8	260035-04-9	260035-05-0	260035-06-1	260035-07-2
	260035-08-3	260035-09-4	260035-10-7	260035-11-8	260035-12-9
	260035-13-0	260035-14-1	260035-15-2	260035-16-3	260035-17-4
	260035-18-5	260035-19-6	260035-20-9	260035-21-0	260035-22-1
	260035-23-2	260035-24-3	260035-25-4	260035-26-5	260035-27-6
	260035-28-7	260035-29-8	260035-30-1	260035-31-2	260035-32-3
	260035-33-4	260035-34-5	260035-35-6	260035-36-7	260035-37-8
	260035-38-9	260035-39-0	260035-40-3	260035-41-4	260035-42-5
	260035-43-6	260035-44-7	260035-45-8	260035-46-9	260035-47-0
	260035-48-1	260035-49-2	260035-50-5	260035-51-6	260035-52-7
	260035-53-8	260035-54-9	260035-55-0	260035-56-1	260035-57-2
	260035-58-3	260035-59-4	260035-60-7	260035-61-8	260035-62-9
	260035-63-0	260035-64-1	260035-65-2	260035-66-3	260035-67-4
	260035-68-5	260035-69-6	260035-70-9	260035-71-0	260035-72-1

260035-73-2	260035-74-3	260035-75-4	260035-76-5	260035-77-6
260035-78-7	260035-79-8	260035-80-1	260035-81-2	260035-82-3
260035-83-4	260035-84-5	260035-85-6	260035-86-7	260035-87-8
260035-88-9	260035-89-0	260035-90-3	260035-91-4	260035-92-5
260035-93-6	260035-94-7	260035-95-8	260035-96-9	260035-97-0
260035-98-1	260035-99-2	260036-00-8	260036-01-9	260036-02-0
260036-03-1	260036-04-2	260036-05-3	260036-06-4	260036-07-5
260036-08-6	260036-09-7	260036-10-0	260036-11-1	260036-12-2
260036-13-3	260036-14-4	260036-15-5	260036-16-6	260036-17-7
260036-18-8	260036-19-9	260036-20-2	260036-21-3	260036-22-4
260036-23-5	260036-24-6	260036-25-7		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; complete genome sequence of *Neisseria meningitidis* serogroup B strain MC58)

IT	260036-26-8	260036-27-9	260036-28-0	260036-29-1	260036-30-4
	260036-31-5	260036-32-6	260036-33-7	260036-34-8	260036-35-9
	260036-36-0	260036-37-1	260036-38-2	260036-39-3	260036-40-6
	260036-41-7	260036-42-8	260036-43-9	260036-44-0	260036-45-1
	260036-46-2	260036-47-3	260036-48-4	260036-49-5	260036-50-8
	260036-51-9	260036-52-0	260036-53-1	260036-54-2	260036-55-3
	260036-56-4	260036-57-5	260036-58-6	260036-59-7	260036-60-0
	260036-61-1	260036-62-2	260036-63-3	260036-64-4	260036-65-5
	260036-66-6	260036-67-7	260036-68-8	260036-69-9	260036-70-2
	260036-71-3	260036-72-4	260036-73-5	260036-74-6	260036-75-7
	260036-76-8	260036-77-9	260036-78-0	260036-79-1	260036-80-4
	260036-81-5	260036-82-6	260036-83-7	260036-84-8	260036-85-9
	260036-86-0	260036-87-1	260036-88-2	260036-89-3	260036-90-6
	260036-91-7	260036-92-8	260036-93-9	260036-94-0	260036-95-1
	260036-96-2	260036-97-3	260036-98-4	260036-99-5	260037-00-1
	260037-01-2	260037-02-3	260037-03-4	260037-04-5	260037-05-6
	260037-06-7	260037-07-8	260037-08-9	260037-09-0	260037-10-3
	260037-11-4	260037-12-5	260037-13-6	260037-14-7	260037-15-8
	260037-16-9	260037-17-0	260037-18-1	260037-19-2	260037-20-5
	260037-21-6	260037-22-7	260037-23-8	260037-24-9	260037-25-0
	260037-26-1	260037-27-2	260037-28-3	260037-29-4	260037-30-7
	260037-31-8	260037-32-9	260037-33-0	260037-34-1	260037-35-2
	260037-36-3	260037-37-4	260037-38-5	260037-39-6	260037-40-9
	260037-41-0	260037-42-1	260037-43-2	260037-44-3	260037-45-4
	260037-46-5	260037-47-6	260037-48-7	260037-49-8	260037-50-1
	260037-51-2	260037-52-3	260037-53-4	260037-54-5	260037-55-6
	260037-56-7	260037-57-8	260037-58-9	260037-59-0	260037-60-3
	260037-61-4	260037-62-5	260037-63-6	260037-64-7	260037-65-8
	260037-66-9	260037-67-0	260037-68-1	260037-69-2	260037-70-5
	260037-71-6	260037-72-7	260037-73-8	260037-74-9	260037-75-0
	260037-76-1	260037-77-2	260037-78-3	260037-79-4	260037-80-7
	260037-81-8	260037-82-9	260037-83-0	260037-84-1	260037-85-2
	260037-86-3	260037-87-4	260037-88-5	260037-89-6	260037-90-9
	260037-91-0	260037-92-1	260037-93-2	260037-94-3	260037-95-4
	260037-96-5	260037-97-6	260037-99-8	260038-01-5	260038-02-6
	260038-04-8	260038-05-9	260038-07-1	260038-08-2	260038-09-3
	260038-10-6	260038-11-7	260038-12-8	260038-13-9	260038-14-0
	260038-15-1	260038-16-2	260038-17-3	260038-18-4	260038-19-5
	260038-20-8	260038-21-9	260038-22-0	260038-23-1	260038-24-2
	260038-25-3	260038-26-4	260038-27-5	260038-28-6	260038-29-7
	260038-30-0	260038-31-1	260038-32-2	260038-33-3	260038-34-4
	260038-35-5	260038-36-6	260038-37-7	260038-38-8	260038-39-9
	260038-40-2	260038-41-3	260038-42-4	260038-43-5	260038-44-6
	260038-45-7	260038-46-8	260038-47-9	260038-48-0	260038-49-1
	260038-50-4	260038-51-5	260038-52-6	260038-53-7	260038-54-8

260038-55-9 260038-56-0 260038-57-1 260038-58-2 260038-59-3
 260038-60-6 260038-61-7 260038-62-8 260038-63-9 260038-64-0
 260038-65-1 260038-66-2 260038-67-3

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)

(amino acid sequence; complete genome sequence of
 Neisseria meningitidis serogroup B strain MC58)

IT	260038-68-4	260038-69-5	260038-70-8	260038-71-9	260038-72-0
	260038-73-1	260038-74-2	260038-75-3	260038-76-4	260038-77-5
	260038-78-6	260038-79-7	260038-80-0	260038-81-1	260038-82-2
	260038-83-3	260038-84-4	260038-85-5	260038-86-6	260038-87-7
	260038-88-8	260038-89-9	260038-90-2	260038-91-3	260038-92-4
	260038-93-5	260038-94-6	260038-95-7	260038-96-8	260038-97-9
	260038-98-0	260038-99-1	260039-00-7	260039-01-8	260039-02-9
	260039-03-0	260039-04-1	260039-05-2	260039-06-3	260039-07-4
	260039-08-5	260039-09-6	260039-10-9	260039-11-0	260039-12-1
	260039-13-2	260039-14-3	260039-15-4	260039-16-5	260039-17-6
	260039-18-7	260039-19-8	260039-20-1	260039-21-2	260039-22-3
	260039-23-4	260039-24-5	260039-25-6	260039-26-7	260039-27-8
	260039-28-9	260039-29-0	260039-30-3	260039-31-4	260039-32-5
	260039-33-6	260039-34-7	260039-35-8	260039-36-9	260039-37-0
	260039-38-1	260039-39-2	260039-40-5	260039-41-6	260039-42-7
	260039-43-8	260039-44-9	260039-45-0	260039-46-1	260039-47-2
	260039-48-3	260039-49-4	260039-50-7	260039-51-8	260039-52-9
	260039-53-0	260039-54-1	260039-55-2	260039-56-3	260039-57-4
	260039-58-5	260039-59-6	260039-60-9	260039-61-0	260039-62-1
	260039-63-2	260039-64-3	260039-65-4	260039-66-5	260039-67-6
	260039-68-7	260039-69-8	260039-70-1	260039-71-2	260039-72-3
	260039-73-4	260039-74-5	260039-75-6	260039-76-7	260039-77-8
	260039-78-9	260039-79-0	260039-80-3	260039-81-4	260039-82-5
	260039-83-6	260039-84-7	260039-85-8	260039-86-9	260039-87-0
	260039-88-1	260039-89-2	260039-90-5	260039-91-6	260039-92-7
	260039-93-8	260039-94-9	260039-95-0	260039-96-1	260039-97-2
	260039-98-3	260039-99-4	260040-00-4	260040-01-5	260040-02-6
	260040-03-7	260040-04-8	260040-05-9	260040-06-0	260040-07-1
	260040-08-2	260040-09-3	260040-10-6	260040-11-7	260040-12-8
	260040-13-9	260040-14-0	260040-15-1	260040-16-2	260040-17-3
	260040-18-4	260040-19-5	260040-20-8	260040-21-9	260040-22-0
	260040-23-1	260040-24-2	260040-25-3	260040-26-4	260040-27-5
	260040-28-6	260040-29-7	260040-30-0	260040-31-1	260040-32-2
	260040-33-3	260040-34-4	260040-35-5	260040-36-6	260040-37-7
	260040-38-8	260040-39-9	260040-40-2	260040-41-3	260040-42-4
	260040-43-5	260040-44-6	260040-45-7	260040-46-8	260040-47-9
	260040-48-0	260040-49-1	260040-50-4	260040-51-5	260040-52-6
	260040-53-7	260040-54-8	260040-55-9	260040-56-0	260040-57-1
	260040-58-2	260040-59-3	260040-60-6	260040-61-7	260040-62-8
	260040-63-9	260040-64-0	260040-65-1	260040-66-2	260040-67-3
	260040-68-4	260040-69-5	260040-70-8	260040-71-9	260040-72-0
	260040-73-1	260040-74-2	260040-75-3	260040-76-4	260040-77-5
	260040-78-6	260040-79-7	260040-80-0	260040-81-1	260040-82-2
	260040-83-3	260040-84-4	260040-85-5	260040-86-6	260040-87-7
	260040-88-8	260040-89-9	260040-90-2	260040-91-3	260040-92-4
	260040-93-5	260040-94-6	260040-95-7	260040-96-8	260040-97-9
	260040-98-0	260040-99-1	260041-00-7	260041-01-8	260041-02-9
	260041-03-0	260041-04-1	260041-05-2		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)

(amino acid sequence; complete genome sequence of
 Neisseria meningitidis serogroup B strain MC58)

IT	260041-06-3	260041-07-4	260041-08-5	260041-09-6	260041-10-9
----	-------------	-------------	-------------	-------------	-------------

260041-11-0	260041-12-1	260041-13-2	260041-14-3	260041-15-4
260041-16-5	260041-17-6	260041-18-7	260041-19-8	260041-20-1
260041-21-2	260041-22-3	260041-23-4	260041-24-5	260041-25-6
260041-26-7	260041-27-8	260041-28-9	260041-29-0	260041-30-3
260041-31-4	260041-32-5	260041-33-6	260041-34-7	260041-35-8
260041-36-9	260041-37-0	260041-38-1	260041-39-2	260041-40-5
260041-41-6	260041-42-7	260041-43-8	260041-44-9	260041-45-0
260041-46-1	260041-47-2	260041-48-3	260041-49-4	260041-50-7
260041-51-8	260041-52-9	260041-53-0	260041-54-1	260041-55-2
260041-56-3	260041-57-4	260041-58-5	260041-59-6	260041-60-9
260041-61-0	260041-62-1	260041-63-2	260041-64-3	260041-65-4
260041-66-5	260041-67-6	260041-68-7	260041-69-8	260041-70-1
260041-71-2	260041-72-3	260041-73-4	260041-74-5	260041-75-6
260041-76-7	260041-77-8	260041-78-9	260041-79-0	260041-80-3
260041-81-4	260041-82-5	260041-83-6	260041-84-7	260041-85-8
260041-86-9	260041-87-0	260041-88-1	260041-89-2	260041-90-5
260041-91-6	260041-92-7	260041-93-8	260041-94-9	260041-95-0
260041-96-1	260041-97-2	260041-98-3	260041-99-4	260042-00-0
260042-01-1	260042-02-2	260042-03-3	260042-04-4	260042-05-5
260042-07-7	260042-08-8	260042-09-9	260042-10-2	260042-11-3
260042-12-4	260042-13-5	260042-14-6	260042-15-7	260042-16-8
260042-17-9	260042-18-0	260042-19-1	260042-20-4	260042-21-5
260042-22-6	260248-93-9	260248-96-2	260249-02-3	260249-96-5
260250-04-2	260250-15-5	260250-16-6	260250-17-7	260250-23-5
260250-26-8	260250-27-9	260250-66-6	260250-72-4	260250-73-5
260250-74-6	260250-75-7	260250-76-8	260250-77-9	260250-78-0
260250-79-1	260250-80-4	260250-81-5	260250-82-6	260250-83-7
260250-84-8	260250-85-9	260250-86-0	260250-87-1	260251-09-0
260251-12-5	260251-32-9	260251-33-0	260251-34-1	260251-35-2
260251-36-3	260251-37-4	260251-39-6	260251-40-9	260251-41-0
260251-42-1	260251-43-2	260251-61-4	260251-65-8	260251-66-9
260251-71-6	260251-72-7	260251-78-3	260251-79-4	260251-80-7
260251-82-9	260252-03-7	260252-10-6	260252-17-3	260252-18-4
260252-19-5	260252-21-9	260252-22-0	260252-26-4	260252-27-5
260252-34-4	260252-44-6	260252-47-9	260252-99-1	260253-00-7
260253-02-9	260253-03-0	260253-09-6	260253-10-9	260253-12-1
260253-13-2	260253-14-3	260253-15-4	260253-26-7	260253-51-8
260253-52-9	260253-53-0	260253-56-3	260253-57-4	260253-58-5
260253-59-6	260253-60-9	260253-61-0	260253-62-1	260253-66-5
260253-68-7	260253-69-8	260253-70-1	260253-71-2	260253-72-3
260253-74-5	260253-76-7	260253-79-0	260253-84-7	260253-85-8
260253-86-9	260253-98-3	260254-82-8	260254-90-8	260266-39-5
260266-42-0	260266-46-4	260266-51-1	260266-56-6	260267-47-8
260268-28-8	260268-29-9	260268-30-2	260268-31-3	260268-32-4
260268-34-6	260268-35-7	260268-37-9	260268-38-0	260268-39-1
260268-40-4	260268-42-6	260268-43-7	260268-44-8	260268-45-9
260268-46-0	260268-54-0	260268-55-1		

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(amino acid sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

IT	260268-81-3	260268-94-8	260268-95-9	260269-00-9	260269-01-0
	260269-02-1	260269-04-3	260269-06-5	260269-07-6	260269-08-7
	260269-09-8	260366-76-5			

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(amino acid sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

IT	259355-80-1, GenBank AE002359	259355-81-2, GenBank AE002360
	259355-82-3, GenBank AE002361	259355-83-4, GenBank AE002362

259355-84-5, GenBank AE002363	259355-85-6, GenBank AE002364
259355-86-7, GenBank AE002365	259355-87-8, GenBank AE002366
259355-88-9, GenBank AE002367	259355-89-0, GenBank AE002368
259355-90-3, GenBank AE002369	259355-91-4, GenBank AE002370
259355-92-5, GenBank AE002371	259355-93-6, GenBank AE002372
259355-94-7, GenBank AE002373	259355-95-8, GenBank AE002374
259355-96-9, GenBank AE002375	259355-97-0, GenBank AE002376
259355-98-1, GenBank AE002377	259355-99-2, GenBank AE002378
259356-00-8, GenBank AE002379	259356-01-9, GenBank AE002380
259356-02-0, GenBank AE002381	259356-03-1, GenBank AE002382
259356-04-2, GenBank AE002383	259356-05-3, GenBank AE002384
259356-06-4, GenBank AE002385	259356-07-5, GenBank AE002386
259356-08-6, GenBank AE002387	259356-09-7, GenBank AE002388
259356-10-0, GenBank AE002389	259356-11-1, GenBank AE002390
259356-12-2, GenBank AE002391	259356-13-3, GenBank AE002392
259356-14-4, GenBank AE002393	259356-15-5, GenBank AE002394
259356-16-6, GenBank AE002395	259356-17-7, GenBank AE002396
259356-18-8, GenBank AE002397	259356-19-9, GenBank AE002398
259356-20-2, GenBank AE002399	259356-21-3, GenBank AE002400
259356-22-4, GenBank AE002401	259356-23-5, GenBank AE002402
259356-24-6, GenBank AE002403	259356-25-7, GenBank AE002404
259356-26-8, GenBank AE002405	259356-27-9, GenBank AE002406
259356-28-0, GenBank AE002407	259356-29-1, GenBank AE002408
259356-30-4, GenBank AE002409	259356-31-5, GenBank AE002410
259356-32-6, GenBank AE002411	259356-33-7, GenBank AE002412
259356-34-8, GenBank AE002413	259356-35-9, GenBank AE002414
259356-36-0, GenBank AE002415	259356-37-1, GenBank AE002416
259356-38-2, GenBank AE002417	259356-39-3, GenBank AE002418
259356-40-6, GenBank AE002419	259356-41-7, GenBank AE002420
259356-42-8, GenBank AE002421	259356-43-9, GenBank AE002422
259356-44-0, GenBank AE002423	259356-45-1, GenBank AE002424
259356-46-2, GenBank AE002425	259356-47-3, GenBank AE002426
259356-48-4, GenBank AE002427	259356-49-5, GenBank AE002428
259356-50-8, GenBank AE002429	259356-51-9, GenBank AE002430
259356-52-0, GenBank AE002431	259356-53-1, GenBank AE002432
259356-54-2, GenBank AE002433	259356-55-3, GenBank AE002434
259356-56-4, GenBank AE002435	259356-57-5, GenBank AE002436
259356-58-6, GenBank AE002437	259356-59-7, GenBank AE002438
259356-60-0, GenBank AE002439	259356-61-1, GenBank AE002440
259356-62-2, GenBank AE002441	259356-63-3, GenBank AE002442
259356-64-4, GenBank AE002443	259356-65-5, GenBank AE002444
259356-66-6, GenBank AE002445	259356-67-7, GenBank AE002446
259356-68-8, GenBank AE002447	259356-69-9, GenBank AE002448
259356-70-2, GenBank AE002449	259356-71-3, GenBank AE002450
259356-72-4, GenBank AE002451	259356-73-5, GenBank AE002452
259356-74-6, GenBank AE002453	259356-75-7, GenBank AE002454
259356-76-8, GenBank AE002455	259356-77-9, GenBank AE002456
259356-78-0, GenBank AE002457	259356-79-1, GenBank AE002458
259356-80-4, GenBank AE002459	259356-81-5, GenBank AE002460
259356-82-6, GenBank AE002461	259356-83-7, GenBank AE002462
259356-84-8, GenBank AE002463	259356-85-9, GenBank AE002464
259356-86-0, GenBank AE002467	259356-87-1, GenBank AE002468
259356-88-2, GenBank AE002469	259356-89-3, GenBank AE002470
259356-90-6, GenBank AE002471	259356-91-7, GenBank AE002472
259356-92-8, GenBank AE002473	259356-93-9, GenBank AE002474
259356-94-0, GenBank AE002475	259356-95-1, GenBank AE002476
259356-96-2, GenBank AE002477	259356-97-3, GenBank AE002478
259356-98-4, GenBank AE002479	259356-99-5, GenBank AE002480
259357-00-1, GenBank AE002481	259357-01-2, GenBank AE002482
259357-02-3, GenBank AE002483	259357-03-4, GenBank AE002484

259357-04-5, GenBank AE002485	259357-05-6, GenBank AE002486
259357-06-7, GenBank AE002487	259357-07-8, GenBank AE002488
259357-08-9, GenBank AE002489	259357-09-0, GenBank AE002490
259357-10-3, GenBank AE002491	259357-11-4, GenBank AE002492
259357-12-5, GenBank AE002493	259357-13-6, GenBank AE002494
259357-14-7, GenBank AE002495	259357-15-8, GenBank AE002496
259357-16-9, GenBank AE002497	259357-17-0, GenBank AE002498
259357-18-1, GenBank AE002499	259357-19-2, GenBank AE002500
259357-20-5, GenBank AE002501	259357-21-6, GenBank AE002502
259357-22-7, GenBank AE002503	259357-23-8, GenBank AE002504
259357-24-9, GenBank AE002505	259357-25-0, GenBank AE002506
259357-26-1, GenBank AE002507	259357-27-2, GenBank AE002508
259357-28-3, GenBank AE002509	259357-29-4, GenBank AE002510
259357-30-7, GenBank AE002511	259357-31-8, GenBank AE002512
259357-32-9, GenBank AE002513	259357-33-0, GenBank AE002514
259357-34-1, GenBank AE002515	259357-35-2, GenBank AE002516
259357-36-3, GenBank AE002517	259357-37-4, GenBank AE002518
259357-38-5, GenBank AE002519	259357-39-6, GenBank AE002520
259357-40-9, GenBank AE002521	259357-41-0, GenBank AE002522
259357-42-1, GenBank AE002523	259357-43-2, GenBank AE002524
259357-44-3, GenBank AE002525	259357-45-4, GenBank AE002526
259357-46-5, GenBank AE002527	259357-47-6, GenBank AE002528
259357-48-7, GenBank AE002529	259357-49-8, GenBank AE002530
259357-50-1, GenBank AE002531	259357-51-2, GenBank AE002532
259357-52-3, GenBank AE002533	259357-53-4, GenBank AE002534
259357-54-5, GenBank AE002535	259357-55-6, GenBank AE002536
259357-56-7, GenBank AE002537	259357-57-8, GenBank AE002538
259357-58-9, GenBank AE002539	259357-59-0, GenBank AE002540
259357-60-3, GenBank AE002541	259357-61-4, GenBank AE002542
259357-62-5, GenBank AE002543	259357-63-6, GenBank AE002544
259357-64-7, GenBank AE002545	259357-65-8, GenBank AE002546
259357-66-9, GenBank AE002547	259357-67-0, GenBank AE002548
259357-68-1, GenBank AE002549	259357-69-2, GenBank AE002550
259357-70-5, GenBank AE002551	259357-71-6, GenBank AE002552
259357-72-7, GenBank AE002553	259357-73-8, GenBank AE002554
259357-74-9, GenBank AE002555	259357-75-0, GenBank AE002556
259357-76-1, GenBank AE002557	259357-77-2, GenBank AE002558
259357-78-3, GenBank AE002559	259357-79-4, GenBank AE002560
259357-80-7, GenBank AE002561	259357-81-8, GenBank AE002562
259357-82-9, GenBank AE002563	259357-83-0, GenBank AE002564
260059-16-3	260059-17-4

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; complete genome sequence of
Neisseria meningitidis serogroup B strain MC58)

RE.CNT 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 19

AN 1999:723179 HCAPLUS

DN 131:335798

TI Neisseria meningitidis and N. gonorrhoeae antigens and the genes encoding them for use as vaccine and diagnostic compositions

IN Fraser, Claire; Galeotti, Cesira; Grandi, Guido; Hickey, Erin; Massignani, Vega; Mora, Marirosa; Petersen, Jeremy; Pizza, Mariagratia; Rappuoli, Rino; Ratti, Giulio; Scalato, Enzo; Scarselli, Maria; Tettelin, Herve; Venter, J. Craig

PA Chiron Corporation, USA; The Institute for Genomic Research

SO PCT Int. Appl., 1453 pp.

CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9957280	A2	20000824	WO 1999-US9346	19990430
	WO 9957280	C2	20020829		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2330838	AA	19991111	CA 1999-2330838	19990430
	AU 9939677	A1	19991123	AU 1999-39677	19990430
	AU 761780	B2	20030612		
	EP 1093517	A2	20010425	EP 1999-922752	19990430
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2004500801	T2	20040115	JP 2000-547235	19990430
	NZ 508366	A	20040326	NZ 1999-508366	19990430
	RU 2227043	C2	20040420	RU 2000-130221	19990430
	BR 9910089	A	20040608	BR 1999-10089	19990430
	NZ 527182	A	20040625	NZ 1999-527182	19990430
PRAI	US 1998-83758P	P	19980501		
	US 1998-94869P	P	19980731		
	US 1998-98994P	P	19980902		
	US 1998-99062P	P	19980902		
	US 1998-103749P	P	19981009		
	US 1998-103796P	P	19981009		
	US 1998-104794P	P	19981009		
	US 1999-121528P	P	19990225		
	US 1998-103794P	P	19981009		
	WO 1999-US9346	W	19990430		
AB	The invention provides 1510 proteins from <i>Neisseria meningitidis</i> and <i>N. gonorrhoeae</i> , including the amino acid sequences and the corresponding nucleotide sequences. The proteins are predicted to be useful antigens for vaccines and/or diagnostics. Conservation of ORFs 225, 235, 287, 419 and 919 is confirmed by sequencing of the proteins from multiple strains each. In addition, PCR primer pairs are provided for amplification of the open reading frames....				
IC	ICM C12N015-31 ICS C07K014-22; C07K016-12; C12Q001-68; A61K039-095; G01N033-50				
CC	15-2 (Immunochemistry) Section cross-reference(s): 3, 6, 10				
L14	ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 20				
AN	1999:326052 HCAPLUS				
DN	131:2733				
TI	Candidate antigens of <i>Neisseria</i> and the genes encoding them and their diagnostic, prophylactic and therapeutic uses				
IN	Masignani, Vega; Rappuoli, Rino; Pizza, Mariagrazia; Scarlato, Vincenzo; Grandi, Guido				
PA	Chiron S.p.A., Italy				
SO	PCT Int. Appl., 524 pp. CODEN: PIXXD2				
DT	Patent				

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9924578	A2	19990520	WO 1998-IB1665	19981009
	WO 9924578	A3	20000302		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2308606	AA	19990520	CA 1998-2308606	19981009
	AU 9893637	A1	19990531	AU 1998-93637	19981009
	EP 1029052	A2	20000823	EP 1998-946675	19981009
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2003522514	T2	20030729	JP 2000-520572	19981009
	RU 2232191	C2	20040710	RU 2000-114245	19981009
PRAI	GB 1997-23516	A	19971106		
	GB 1997-24190	A	19971114		
	GB 1997-24386	A	19971118		
	GB 1997-25158	A	19971127		
	GB 1997-26147	A	19971210		
	GB 1998-759	A	19980114		
	GB 1998-19016	A	19980901		
	WO 1998-IB1665	W	19981009		
AB	Proteins of <i>Neisseria meningitidis</i> (strains A and B) and <i>Neisseria gonorrhoeae</i> that may be useful as antigens in the diagnosis, prophylaxis, and treatment of meningitis and gonorrhea are described and genes encoding them are cloned and expressed in <i>Escherichia coli</i> . Cloning and expression of the genes or partial open reading frames using hexahistidine tags for affinity purification are described. Results from BLAST searches identifying possible homologs of many of the genes are reported.				
IC	ICM C12N015-31				
	ICS C07K014-22; C07K016-12; A61K039-095; C12N015-31; C12R001-36				
CC	10-1 (Microbial, Algal, and Fungal Biochemistry)				
	Section cross-reference(s): 3, 15				
IT	<i>Neisseria gonorrhoeae</i>				
	<i>Neisseria meningitidis</i>				
	(candidate antigens of <i>Neisseria</i> and genes encoding them and their diagnostic, prophylactic and therapeutic uses)				
IT	DNA-sequence analysis				
	(in identification of antigen genes of <i>Neisseria</i> ; candidate antigens of <i>Neisseria</i> and genes encoding them and their diagnostic, prophylactic and therapeutic uses)				
IT	Protein sequences				
	(of open reading frame proteins of <i>Neisseria</i> ; candidate antigens of <i>Neisseria</i> and genes encoding them and their diagnostic, prophylactic and therapeutic uses)				
IT	DNA sequences				
	(of open reading frames of <i>Neisseria</i> ; candidate antigens of <i>Neisseria</i> and genes encoding them and their diagnostic, prophylactic and therapeutic uses)				
IT	224769-99-7	224770-06-3	224770-12-1	224770-28-9	224770-33-6
	224770-37-0	224778-74-9	224957-16-8	224957-29-3	224957-34-0
	224957-38-4	224957-40-8	224957-41-9	224957-43-1	224957-45-3
	224957-47-5	224957-49-7	224957-51-1	224957-54-4	224957-56-6

224957-58-8	224957-63-5	224957-68-0	224957-75-9	224957-80-6
224957-81-7	224957-90-8	224957-99-7	224958-03-6	224958-07-0
224958-09-2	224958-11-6	224958-13-8	224958-23-0	224958-25-2
224958-27-4	224958-30-9	224958-31-0	224958-33-2	224958-34-3
224958-35-4	224958-37-6	224958-39-8	224958-41-2	224958-43-4
224958-46-7	224958-48-9	224958-49-0	224958-53-6	224958-55-8
224958-59-2	224958-61-6	224958-63-8	224958-66-1	224958-68-3
224958-69-4	224958-71-8	224958-72-9	224958-76-3	224958-79-6
224958-81-0	224958-83-2	224958-85-4	224958-87-6	224958-89-8
224958-91-2	224958-92-3	224958-94-5	224958-96-7	224958-98-9
224958-99-0	224959-00-6	224959-02-8	224959-04-0	224959-06-2
224959-08-4	224959-10-8	224959-12-0	224959-14-2	224959-15-3
224959-17-5	224959-20-0	224959-22-2	224959-23-3	224959-24-4
224959-26-6	224959-28-8	224959-30-2	224959-32-4	224959-34-6
224959-36-8	224959-37-9	224959-41-5	224959-43-7	224959-45-9
224959-49-3	224959-50-6	224959-52-8	224959-54-0	224959-56-2
224959-58-4	224959-60-8	224959-62-0	224959-64-2	224959-66-4
224959-68-6	224959-69-7	224959-71-1	224959-73-3	224959-74-4
224959-76-6	224959-78-8	224959-80-2	224959-81-3	224959-83-5
224959-85-7	224959-87-9	224959-89-1	224959-90-4	224959-91-5
224959-93-7	224959-99-3	225096-49-1	225096-51-5	225096-59-3
225096-65-1	225096-68-4	225096-70-8	225096-74-2	225096-84-4
225096-86-6	225096-88-8	225096-89-9	225096-93-5	225096-98-0
225097-00-7	225097-09-6	225097-13-2	225097-15-4	225097-21-2
225097-34-7	225097-36-9	225097-46-1	225097-49-4	225097-58-5
225097-80-3	225097-94-9	225097-96-1	225097-98-3	225098-00-0
225098-04-4	225098-06-6	225098-10-2	225098-12-4	225098-17-9
225098-31-7	225098-41-9	225098-43-1	225098-45-3	225098-47-5
225098-49-7	225098-51-1	225098-58-8	225098-60-2	225098-72-6
225098-85-1	225098-92-0	225099-08-1	225099-16-1	225099-22-9
225099-37-6	225099-49-0	225099-63-8	225099-79-6	225100-11-8
225100-26-5	225100-38-9	225100-40-3	225100-42-5	225100-54-9
225100-69-6	225100-82-3	225100-97-0	225101-09-7	225101-25-7
225101-42-8	225101-60-0	225101-65-5	225101-80-4	225101-97-3
225102-15-8	225102-30-7	225102-35-2	225102-37-4	225102-39-6
225102-41-0	225102-42-1	225102-44-3	225102-46-5	225102-48-7
225102-50-1	225102-51-2	225102-53-4	225102-55-6	225102-57-8
225102-58-9	225102-60-3	225102-62-5	225102-65-8	225102-69-2
225102-75-0	225102-82-9	225102-85-2	225102-90-9	225102-96-5
225102-99-8	225103-06-0	225103-12-8	225103-19-5	225103-26-4
225103-33-3	225103-35-5	225103-42-4	225103-55-9	225103-56-0
225103-58-2	225103-60-6	225103-63-9	225103-69-5	225103-73-1
225103-77-5	225103-84-4	225103-90-2	225103-97-9	225104-04-1
225104-08-5				

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; candidate antigens of Neisseria and genes encoding them and their diagnostic, prophylactic and therapeutic uses)

IT	225104-14-3	225104-19-8	225104-29-0	225104-36-9	225104-42-7
	225104-45-0	225105-11-3	225105-14-6	225105-19-1	225105-22-6
	225105-26-0	225105-28-2	225105-32-8	225105-35-1	225227-38-3
	225227-39-4	225227-50-9	225227-52-1	225227-53-2	225227-55-4
	225227-58-7	225227-60-1	225227-62-3	225227-63-4	225227-73-6
	225227-75-8	225227-77-0	225227-79-2	225227-84-9	225227-86-1
	225227-88-3	225227-94-1	225228-00-2	225228-10-4	225228-17-1
	225228-19-3	225228-22-8	225228-51-3	225228-53-5	225228-55-7
	225228-58-0	225228-60-4	225228-62-6	225228-64-8	225228-65-9
	225228-67-1	225228-71-7	225228-73-9	225228-75-1	225228-76-2
	225228-82-0	225228-88-6	225228-93-3	225228-98-8	225228-99-9

225229-04-9	225229-09-4	225229-11-8	225229-13-0	225229-16-3
225229-18-5	225229-19-6	225229-21-0	225229-23-2	225229-27-6
225229-32-3	225229-33-4	225229-35-6	225229-37-8	225229-39-0
225229-41-4	225229-42-5	225229-44-7	225229-47-0	225229-49-2
225229-51-6	225229-53-8	225229-55-0	225229-57-2	225229-59-4
225229-61-8	225229-63-0	225229-67-4	225229-70-9	225229-72-1
225229-73-2	225229-76-5	225229-78-7	225229-79-8	225229-80-1
225229-82-3	225229-84-5	225229-87-8	225229-89-0	225229-91-4
225229-93-6	225229-95-8	225229-99-2	225230-02-4	225230-04-6
225230-08-0	225230-11-5	225230-13-7	225230-17-1	225230-19-3
225230-21-7	225230-23-9	225230-24-0	225230-26-2	225230-28-4
225230-31-9	225230-32-0	225230-35-3	225230-37-5	225230-41-1
225230-44-4	225230-45-5	225230-47-7	225230-49-9	225230-54-6
225230-57-9	225230-58-0	225230-60-4	225230-62-6	225230-64-8
225230-66-0	225230-68-2	225230-71-7	225230-73-9	225230-75-1
225230-77-3	225230-84-2	225230-91-1	225230-99-9	225231-04-9
225231-07-2	225231-13-0	225231-15-2	225231-17-4	225231-19-6
225231-21-0	225231-23-2	225231-25-4	225231-26-5	225231-29-8
225231-31-2	225231-33-4	225231-35-6	225231-37-8	225231-39-0
225231-41-4	225231-43-6	225231-45-8	225231-47-0	225231-49-2
225231-51-6	225231-52-7	225231-55-0	225231-57-2	225231-59-4
225231-61-8	225231-63-0	225231-66-3	225231-71-0	225231-76-5
225231-77-6	225231-79-8	225231-81-2	225231-83-4	225231-85-6
225231-86-7	225231-89-0	225231-91-4	225231-93-6	225231-95-8
225231-96-9	225231-98-1	225232-06-4	225232-13-3	225232-18-8
225232-26-8	225235-54-1	225235-55-2	225235-76-7	225374-75-4
225374-86-7	225374-91-4	225374-97-0	225375-00-8	225375-02-0
225375-04-2	225375-06-4	225375-08-6	225375-10-0	225375-12-2
225375-14-4	225375-15-5	225375-17-7	225375-19-9	225375-21-3
225375-23-5				

RL: BSU (Biological study, unclassified); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)

(amino acid sequence; candidate antigens of Neisseria and
genes encoding them and their diagnostic, prophylactic and therapeutic
uses)

IT	224769-98-6	224770-03-0	224770-09-6	224770-15-4	224770-25-6
	224770-31-4	224770-36-9	224770-42-7	224957-28-2	224957-30-6
	224957-37-3	224957-39-5	224957-42-0	224957-44-2	224957-46-4
	224957-48-6	224957-52-2	224957-55-5	224957-57-7	224957-60-2
	224957-73-7	224957-83-9	224957-94-2	224958-06-9	224958-08-1
	224958-10-5	224958-12-7	224958-19-4	224958-24-1	224958-26-3
	224958-29-6	224958-32-1	224958-36-5	224958-38-7	224958-40-1
	224958-42-3	224958-44-5	224958-47-8	224958-50-3	224958-52-5
	224958-54-7	224958-56-9	224958-58-1	224958-60-5	224958-62-7
	224958-64-9	224958-65-0	224958-67-2	224958-70-7	224958-78-5
	224958-80-9	224958-82-1	224958-84-3	224958-86-5	224958-88-7
	224958-90-1	224958-93-4	224958-95-6	224958-97-8	224959-01-7
	224959-03-9	224959-05-1	224959-07-3	224959-09-5	224959-11-9
	224959-13-1	224959-16-4	224959-18-6	224959-19-7	224959-21-1
	224959-25-5	224959-27-7	224959-29-9	224959-31-3	224959-33-5
	224959-35-7	224959-38-0	224959-42-6	224959-44-8	224959-47-1
	224959-51-7	224959-53-9	224959-55-1	224959-57-3	224959-59-5
	224959-61-9	224959-63-1	224959-65-3	224959-67-5	224959-70-0
	224959-72-2	224959-75-5	224959-77-7	224959-79-9	224959-82-4
	224959-84-6	224959-86-8	224959-88-0	224959-92-6	225096-44-6
	225096-50-4	225096-64-0	225096-67-3	225096-69-5	225096-71-9
	225096-79-7	225096-85-5	225096-87-7	225096-90-2	225096-97-9
	225096-99-1	225097-05-2	225097-12-1	225097-14-3	225097-16-5
	225097-29-0	225097-41-6	225097-48-3	225097-50-7	225097-65-4
	225097-92-7	225097-95-0	225097-97-2	225097-99-4	225098-01-1

225098-05-5	225098-07-7	225098-08-8	225098-09-9	225098-11-3
225098-14-6	225098-25-9	225098-38-4	225098-42-0	225098-44-2
225098-46-4	225098-48-6	225098-50-0	225098-56-6	225098-59-9
225098-66-8	225098-79-3	225098-91-9	225099-00-3	225099-11-6
225099-30-9	225099-43-4	225099-56-9	225099-72-9	225100-19-6
225100-32-3	225100-39-0	225100-41-4	225100-47-0	225100-62-9
225100-76-5	225100-89-0	225101-03-1	225101-16-6	225101-34-8
225101-52-0	225101-72-4	225101-89-3	225102-07-8	225102-22-7
225102-32-9	225102-36-3	225102-38-5	225102-40-9	225102-43-2
225102-45-4	225102-47-6	225102-49-8	225102-52-3	225102-54-5
225102-56-7	225102-59-0	225102-61-4	225102-63-6	225102-66-9
225102-72-7	225102-78-3	225102-87-4	225102-92-1	225103-02-6
225103-09-3	225103-16-2	225103-23-1	225103-29-7	225103-39-9
225103-52-6	225103-57-1	225103-59-3	225103-62-8	225103-67-3
225103-70-8	225103-80-0	225103-87-7	225103-94-6	225104-00-7
225104-05-2	225104-11-0	225104-16-5	225104-23-4	225104-26-7
225104-33-6	225104-39-2	225104-43-8	225105-20-4	225105-24-8
225105-30-6	225105-34-0	225227-37-2	225227-40-7	225227-51-0
225227-54-3	225227-59-8	225227-61-2	225227-64-5	225227-65-6
225227-72-5	225227-74-7	225227-76-9	225227-78-1	225227-85-0
225227-87-2	225227-90-7	225227-98-5	225228-06-8	225228-14-8
225228-18-2	225228-20-6	225228-50-2	225228-52-4	225228-54-6
225228-56-8				

RL: BSU (Biological study, unclassified); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; candidate antigens of Neisseria and
genes encoding them and their diagnostic, prophylactic and therapeutic
uses)

IT	225228-57-9	225228-59-1	225228-61-5	225228-63-7	225228-66-0
	225228-70-6	225228-72-8	225228-74-0	225228-78-4	225228-85-3
	225228-91-1	225228-96-6	225229-00-5	225229-05-0	225229-08-3
	225229-10-7	225229-12-9	225229-15-2	225229-17-4	225229-20-9
	225229-22-1	225229-24-3	225229-31-2	225229-34-5	225229-36-7
	225229-38-9	225229-40-3	225229-43-6	225229-46-9	225229-48-1
	225229-50-5	225229-52-7	225229-54-9	225229-56-1	225229-58-3
	225229-60-7	225229-62-9	225229-66-3	225229-68-5	225229-71-0
	225229-74-3	225229-77-6	225229-81-2	225229-83-4	225229-85-6
	225229-86-7	225229-88-9	225229-90-3	225229-92-5	225229-94-7
	225229-98-1	225230-01-3	225230-03-5	225230-05-7	225230-06-8
	225230-07-9	225230-10-4	225230-12-6	225230-14-8	225230-15-9
	225230-16-0	225230-20-6	225230-22-8	225230-25-1	225230-27-3
	225230-29-5	225230-33-1	225230-36-4	225230-39-7	225230-43-3
	225230-46-6	225230-48-8	225230-52-4	225230-56-8	225230-59-1
	225230-61-5	225230-63-7	225230-65-9	225230-67-1	225230-70-6
	225230-72-8	225230-74-0	225230-76-2	225230-79-5	225230-88-6
	225230-95-5	225231-01-6	225231-05-0	225231-08-3	225231-11-8
	225231-14-1	225231-18-5	225231-20-9	225231-22-1	225231-24-3
	225231-27-6	225231-30-1	225231-32-3	225231-34-5	225231-36-7
	225231-38-9	225231-40-3	225231-42-5	225231-44-7	225231-46-9
	225231-48-1	225231-50-5	225231-53-8	225231-54-9	225231-56-1
	225231-58-3	225231-62-9	225231-64-1	225231-68-5	225231-75-4
	225231-78-7	225231-80-1	225231-82-3	225231-84-5	225231-87-8
	225231-90-3	225231-92-5	225231-94-7	225231-97-0	225232-02-0
	225232-10-0	225232-15-5	225232-22-4	225374-83-4	225374-89-0
	225374-94-7	225374-99-2	225375-01-9	225375-03-1	225375-05-3
	225375-07-5	225375-09-7	225375-11-1	225375-13-3	225375-16-6
	225375-18-8	225375-20-2	225375-22-4		

RL: BSU (Biological study, unclassified); PRP (Properties); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; candidate antigens of Neisseria and

genes encoding them and their diagnostic, prophylactic and therapeutic uses)

L14 ANSWER 26 OF 27 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
 AN 1999-444400 [37] WPIDS
 DNN N1999-331439 DNC C1999-130937
 TI New protein and its nucleotide **sequence**, useful in vaccines or diagnostic compositions for treating and/or preventing *Neisseria meningitidis* infections.
 DC B04 D16 S03
 IN GRANDI, G; MASIGNANI, V; PIZZA, M; RAPPUOLI, R; SCARLATO, V
 PA (CHIR) CHIRON SPA; (CHIR) CHIRON SRL
 CYC 85
 PI WO 9936544 A2 19990722 (199937)* EN 123
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
 OA PT SD SE SZ UG ZW
 W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
 GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
 UA UG US UZ VN YU ZW
 AU 9919795 A 19990802 (199954)
 EP 1047784 A2 20001102 (200056) EN
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
 CN 1292820 A 20010425 (200143)
 BR 9906927 A 20011120 (200202)
 JP 2002508966 W 20020326 (200236) 198
 MX 2000006900 A1 20011001 (200274)
 US 6709660 B1 20040323 (200421)
 US 2004126391 A1 20040701 (200444)
 RU 2233331 C2 20040727 (200456)
 ADT WO 9936544 A2 WO 1999-IB103 19990114; AU 9919795 A AU 1999-19795 19990114;
 EP 1047784 A2 EP 1999-900583 19990114, WO 1999-IB103 19990114; CN 1292820
 A CN 1999-803873 19990114; BR 9906927 A BR 1999-6927 19990114, WO
 1999-IB103 19990114; JP 2002508966 W WO 1999-IB103 19990114, JP
 2000-540246 19990114; MX 2000006900 A1 MX 2000-6900 20000713; US 6709660
 B1 CIP of WO 1999-IB103 19990114, US 1999-302626 19990430; US 2004126391
 A1 CIP of WO 1999-IB103 19990114, Cont of US 1999-302626 19990430, US
 2003-695499 20031028; RU 2233331 C2 WO 1999-IB103 19990114, RU 2000-121049
 19990114
 FDT AU 9919795 A Based on WO 9936544; EP 1047784 A2 Based on WO 9936544; BR
 9906927 A Based on WO 9936544; JP 2002508966 W Based on WO 9936544; US
 2004126391 A1 Cont of US 6709660; RU 2233331 C2 Based on WO 9936544
 PRAI GB 1998-22143 19981009; GB 1998-760 19980114;
 GB 1998-19015 19980901
 AB WO 9936544 A UPAB: 20040907
 NOVELTY - A **protein** from *Neisseria meningitidis* is new.

DETAILED DESCRIPTION - A **protein** from *Neisseria meningitidis* has one of amino acid **sequences** (S1)-(S3) of 245, 591 and 592 amino acids, respectively (all are given in the specification)

INDEPENDENT CLAIMS are also included for the following:

- (1) a **protein** (I) comprising an amino acid **sequence**, having at least 50% **sequence** identity, or a fragment of the 45 **sequences** (given in the specification), e.g. (S1)-(S3). specification;
- (2) an antibody (III) which binds to (I);
- (3) a nucleic acid (II) molecule which encodes (I);
- (4) a nucleic acid molecule comprising a complementary nucleic acid

molecule to (II);

(5) a nucleic acid molecule comprising a nucleic acid **sequence**, having at least 50% **sequence** identity to (II);

(6) a nucleic acid molecule which can hybridize to (II) under high stringency conditions;

(7) a composition comprising (I); (II) or (III).

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - None given.

USE - The composition is useful as a pharmaceutical, e.g. a vaccine composition or a diagnostic composition. The composition is also useful for treating or preventing an infection due to Neisserial bacteria, especially Neisseria meningitidis.

ADVANTAGE - None given.

Dwg.0/7

L14 ANSWER 27 OF 27 MEDLINE on STN DUPLICATE 21
 AN 96345608 MEDLINE
 DN PubMed ID: 8755871
 TI A new gene locus of Bordetella pertussis defines a novel family of prokaryotic transcriptional accessory proteins.
 AU Fuchs T M; Deppisch H; Scarlato V; Gross R
 CS Theodor-Boveri-Institut fur Biowissenschaften, Lehrstuhl fur Mikrobiologie, Universitat Wurzburg, Germany.
 SO Journal of bacteriology, (1996 Aug) 178 (15) 4445-52.
 Journal code: 2985120R. ISSN: 0021-9193.
 CY United States
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 OS GENBANK-X95386
 EM 199609
 ED Entered STN: 19961008
 Last Updated on STN: 19961008
 Entered Medline: 19960926
 AB Recently, a novel type of regulatory mutation causing differential effects on the expression of virulence genes due to a slight overexpression of the RNA polymerase alpha subunit (RpoA) was found in Bordetella pertussis (N. H. Carbonetti, T. M. Fuchs, A. A. Patamawenu, T. J. Irish, H. Deppisch, and R. Gross, J. Bacteriol. 176:7267-7273, 1994). To gather information on the molecular events behind this phenomenon, we isolated suppressor mutants of the RpoA-overexpressing strains after random mutagenesis. Genetic characterization of these suppressor strains revealed the existence of at least three distinct groups of dominant alleles. Mutations occurred either in the rpoA locus itself, in the bvg locus, or in unknown gene loci. One mutant of the latter group was further characterized. By the introduction of a cosmid library containing genomic B. pertussis DNA into this suppressor strain, we isolated a cosmid which suppressed the phenotype of the suppressor strain, thus restoring the negative effect on transcription of the ptx and cya toxin genes. Mutagenesis of the cosmid with Tn5 led to the identification of the gene locus responsible for this phenomenon. Its DNA **sequence** revealed the presence of an open reading frame (ORF) consisting of 2,373 bp coding for a hypothetical 86-kDa **protein** with extensive **sequence** similarities to ORFs with not yet identified functions of Escherichia coli, Haemophilus influenzae, and Neisseria meningitidis. The new gene, termed tex, for toxin expression, seems to be an essential factor for B. pertussis, as it cannot be deleted from the bacterial chromosome. All members of this new **protein** family show significant **sequence** similarities with the mannitol repressor **protein** MtlR and with the presumptive RNA-binding

domains of the Pnp and ribosomal S1 proteins of E. coli in their N- and C-terminal parts, respectively. These **sequence** similarities and the fact that the tex gene was isolated by virtue of its effects on gene expression in B. pertussis indicate that the members of this new **protein** family may play an important role in the transcription machinery of prokaryotic organisms.

CT Check Tags: Support, Non-U.S. Gov't

Amino Acid Sequence

*Bacterial Proteins: GE, genetics

Base Sequence

*Bordetella pertussis: GE, genetics

Bordetella pertussis: PY, pathogenicity

DNA, Bacterial: GE, genetics

Gene Expression

*Genes, Bacterial

Molecular Sequence Data

Mutation

Promoter Regions (Genetics)

Sequence Homology, Amino Acid

Suppression, Genetic

*Transcription Factors: GE, genetics

Virulence: GE, genetics

Virulence Factors, Bordetella: GE, genetics

CN 0 (Bacterial Proteins); 0 (DNA, Bacterial); 0 (Tex protein, Bordetella pertussis); 0 (Transcription Factors); 0 (Virulence Factors, Bordetella)

=>